

# THE CULTIVATOR:

A CONSOLIDATION OF BUEL'S CULTIVATOR AND THE GENESEE FARMER.

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## THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

We issue this number earlier than usual, to give us time to attend to our duties connected with the State Society's Fair.

### ACKNOWLEDGMENTS.

THE Editors of the Cultivator tender their grateful acknowledgments to the several Societies in this and the neighboring states, who have invited them to attend their several annual exhibitions. It would afford them great pleasure to be present at all these exhibitions, to witness the evidences which will there be seen, of the rapid progress which is making in the improvement of the several branches of American Husbandry; but this would be impossible. It is however their intention to attend as many of them as circumstances will admit, and especially do they hope that one of them will be able to be present at Pittsfield and Worcester.

The Editors return their thanks

To P. L. SIMMONDS, Esq. London, for a "List of the Members of the Royal Ag. Society," and for several London papers.

To W. WITHERS, Esq. Holt, England, for a beautiful octavo vol. of over 400 pages, entitled "The Acacia Tree,—its growth, qualities, and uses, with observations on Planting, Manuring and Pruning. By W. Withers, author of a Memoir on the planting and rearing of Forest Trees, &c."

To G. C. THORNBURN, Esq. New-York, for the last No. of the "British Farmer's Magazine,"—also for the "London Morning Chronicle," containing an obituary notice of the late Earl of Leicester.

To some unknown friend at Hartford, Ct. for a No. of the "Bristol Journal," containing a Report of Mr. Smith's Lecture on Draining, at the late meeting of the Royal Ag. Society.

To JAMES HERBERT, Esq. Herbertsville, N. J., for a box of native Grapes, of which he asks the name. They are one of the best kinds of Fox grapes; but are by no means equal to the Isabella, or several other varieties of the native grape.

To Dr. LEWIS FEUCHTWANGER, New-York, for samples of the several articles advertised by him in this paper, all of which shall have a trial.

To Mr. WM. A. CROWELL, Lime Rock, Ct., for one of his patent Thermometer Churns, a figure of which is given in another part of this paper.

To L. KENNEDY, Jr. Hartford, Ct., for one of Collins & Stone's patent Cheese Presses, for a description of which see p. 167.

To Dr. N. B. CLOUD, Planter's Retreat, Alabama, for some of the seeds of the "South American Evergreen Pasture Grass," with a specimen of the plant. We shall divide the seeds with our friend "Commentator," whom we expect to see at our State Fair, that they may be tried in his state as well as in this. We shall be greatly obliged to Dr. C. for his promised article on the culture of Cotton. See his communication, p. 164.

To THOS. AFFLECK, late editor of the Western Farmer at Cincinnati, but now of Washington, Mississippi, for the "Transactions of the Agricultural, Horticultural and

Botanical Society of Jefferson College, Miss.," including a very interesting Report on the Horticulture of that vicinity, from the pen of Mr. Affleck.

To Mr. J. M. LAWRENCE, Hudson, for a dozen of his seedling plum, called the "Columbia Gage," a fine large fruit, well worthy of general introduction.

COMMUNICATIONS have been received, since our last, from Will. C. Carr, A Friend to Agriculture, G. E. H., J. Park, (forwarded to Mr. Geo. Page, Baltimore,) Wm. A. Crowell, Henry Palmer, Wm. Partridge, H. Mooers, L. B. Armstrong, U. C., T. Hudson, An Inquirer, P. L. Simmonds, M. Battel, H. A. P., J. K. L., N. N. D., J. Herbert, S., Dr. N. B. Cloud, E. M., J. N. Keeler, J. J. Thomas, Dr. R. T. Underhill, John J. Crocheron, A. E. Ernest, Friend Hasty.

### EXTRACTS OF LETTERS.

MISSISSIPPI.—Extract of a letter from W. B. WILBORNE, Esq. dated Oakachikama, Yallabusha county, July 9, 1842:—"The spirit of agricultural improvements is just beginning to attract the attention of the people here, and we may hope the time is not distant, when this state, and in fact, the whole southwest, will be waked up to the importance of the subject. We had a meeting at Grenada, in this county, on the 4th inst., and formed our first agricultural society—adopted a constitution, elected officers, &c., by which an impulse has been given to the cause, and we hope, from this time forward, the march of agricultural improvement will be onward, and still onward, until we shall not be behind any one of our sister states. We have been favored in this region by plenty of rain, and the crops of corn, cotton, and every thing cultivated, were never (in the memory of the white population,) more forward, or more full of the promise of an abundant yield. The early corn was in the roasting ear by the middle of June. Cotton is fully a month in advance of the last year, and in full bloom, and with many full grown bolls."

ILLINOIS.—Extract of a letter from E. W. BREWSTER, Esq. P. M., Little Woods, Kane co. Illinois, dated July 28:—"We are now in the midst of our wheat harvest, which is generally very good. Some late sown fields injured by the rust; as a whole however, the quality of our wheat will be good, and the quantity greatly increased. Corn is very backward. Barley, oats, potatoes, abundant. Grass is nothing thought of with us; immense tracts of the finest pasurage and hay, capable of sustaining millions of sheep, summer and winter, are annually given to the flames. Keen sighted self-interest will however soon correct this error. Sheep are rapidly accumulating on our prairies, and wool must soon be an important item in the exports of Northern Illinois."

MISSOURI.—Extract of a letter from a subscriber at St. Louis, dated Aug. 20:—"I regret to say that agriculture has been much neglected heretofore, not only in this county, but throughout the state; but a better spirit appears awakening on this important subject, and we hope for the most beneficial results. The two great staples, Tobacco and Hemp, are annually increasing in amount and importance, and our soil is admirably adapted to their culture. Blooded stock is beginning to receive that consideration, which should have been bestowed upon so important a subject long since."

IOWA.—Extract of a letter from J. King, Esq. Dubuque:—"Crops of wheat, rye, oats, and potatoes, are good in Iowa. Corn is not so promising as usual, owing to the coolness of the spring. It is very healthy this season. Peace and plenty abound. There is no real cause for 'hard times.' If Congress would let 'President making' alone, and legislate for the whole republic—the people eat and drink moderately—dress comfortably—all go to work, our country would ere long regain its accustomed prosperity."

### ANOTHER HUMBUG EXPLODED.

FROM the English agricultural journals we perceive that much attention has been excited in the agricultural community of that country, by the introduction of a new clover called the Bokhara clover, famous for its rapid growth, and the great amount of green food a small quantity of land sown with the seeds would produce. Quite a handsome speculation was going on in the seeds, when some specimens fell under the notice of the naturalist, Dr. Smith, who pronounced the plant to be the *Melilot alba*, or white Siberian melilot, commonly known as Buffalo or sweet clover, but in reality no clover at all. This plant had long been cultivated in gardens, and to some extent had been introduced into field culture on the

continent; but the benefits expected from its use have not been realized. In a memoir read before the French Ag. Society, in 1788, by M. Thouin, it was strongly recommended, but on a large scale, was not found to equal representations made from garden culture. It was found in France to bear four cuttings in a year; but if not cut while young, the stems became woody and of little value.

This Bokhara clover, or melilot, was introduced into Pennsylvania, some two years since, and the fortunate possessors of the plant were driving a lucrative business in selling the seeds at the rate of one dollar a hundred, when its identity with *sweet clover* was detected by a lady, and the bubble of course has burst in this country as well as in Europe. A letter from Mr. Hepburn, in the August Agriculturist, details the process of identification.

We have frequently cautioned our farmers against indulging in extravagant or costly speculations in new things, or things that are called so. The caution to "prove all things and hold fast that which is good," is as applicable in agriculture, as in theology. The melilot is a valuable plant for some purposes, but it will not equal the representations made of it as a forage plant. It is not a clover, and the plant is not a new one; and if any, with a knowledge of these facts, have disposed of the seeds as such, they have practiced a gross deception or imposition. Melilot is the plant used to give the peculiar flavor and appearance to the celebrated Schabzieger cheese of Switzerland, and the Guyere cheese of France. The green plant is ground in a mill and mixed with the curd into a kind of paste, which is put into conical molds to be dried and cured. Some farmers in Europe, are in the habit of mixing it in small quantities with their hay. Its powerful aromatic smell imparts to the hay an agreeable flavor, which is evidently agreeable to animals. But as most of our readers have cultivated it in their gardens as sweet clover, there is no necessity of enlarging on its properties.

### TRUE STANDARD OF VALUE.

THE importance of agriculture to any country cannot be more strongly or correctly stated than in the following extract from Adam Smith's Wealth of Nations, premising merely that all English writers, by the word "corn," mean wheat alone:

"Corn regulates the money price of all the other parts of the rude produce of the land, which in every period of improvement must bear a certain proportion to that of corn. Woollen or linen cloths are not the regulating commodities, by which the real value of all other commodities must be finally measured and determined; corn is. The money price of labor, and of everything that is the produce of land, or of labor, must necessarily rise or fall in proportion to the money price of corn."

The commercial and financial history of England, and of the world generally for the last five years, has furnished evidence more conclusive than any with which Adam Smith could have been acquainted, that in all civilized countries wheat alone, and not gold and silver, constitutes the true standard of value. Gold is the representative of the value, which wheat possesses in itself. Food is the great central point round which all minor considerations revolve; and of all the various substances used, bread, or wheat from which it is made, is vastly the most important. If there was not an ounce of gold or silver on the globe, wheat would be worth for bread as much as it now is; the little value there is in gold without bread, was demonstrated by the rapidity with which gold left England in 1837-38 to procure wheat. That country, therefore, in which agriculture is in the most advanced state; that in which the greatest quantity of wheat or bread corn can be grown, is actually the richest. No country can retain its gold and silver that does not grow its own bread; and the precious metals, in spite of every precaution, of every vexatious regulation of the most watchful government, will flow from the country that lacks bread, to the one that is able to supply it. The United States can alone hope to retain the precious metals they now have, or make additions to the quantity, except by the extensive production of wheat. The experience of the world shows that the balance of trade is always in favor of that country that produces the greatest quantity of wheat; a conclusive proof that wheat is strictly speaking the real standard of value, and that however we may confound or misapply the terms, the precious metals are only the representatives of value. The country then that would be rich and prosperous must abound in bread; and a wheat growing country, under equitable laws and a good government, must always be a rich one.

"Let no man be ashamed of a hard fist."

## STATISTICS OF WHEAT, &amp;c.

At the present time, when the statistics of agriculture, in connexion with tariffs and corn laws, are receiving so much attention, we think the following table of the prices of wheat in different places, in the same year, prepared for the N. Y. Express, by E. Williams, Esq. will not be without interest. The several tables of Mr. W., which we have compressed into one, will certainly furnish matter for reflection; for the price of bread stuffs must always have a controlling influence on the general prosperity of any country. Mr. Leavitt's Memorial, from which these tables were derived, abounds in similar facts of the greatest value to the political economist, and to the farmer.

Average prices of wheat per bushel of 60 lbs. in the several places, and years named:

Year.	Ohio.	Phila.	France.	England.	Flour in Phila.
1820	30 cts.	92	1,44	2,63	4,72
1821	31	93	1,10	1,68	4,78
1822	38	1,33	1,07	1,34	6,58
1823	38	1,37	1,08	1,60	6,92
1824	42	1,11	99	1,92	5,62
1825	38	1,00	1,08	2,08	5,10
1826	38	92	1,07	1,76	4,65
1827	50	1,00	1,31	1,78	5,23
1828	50	1,10	1,49	1,81	5,60
1829	78	1,28	1,48	1,99	6,33
1830	50	96	1,60	1,93	4,83
1831	50	1,12	1,57	1,99	5,67
1832	68	1,12	1,28	1,76	5,72
1833	59	1,12	1,06	1,50	5,63
1834	59	1,02	1,00	1,39	5,17
1835	83	1,21	96	1,18	5,88
1836	1,12	1,60	1,17	1,45	7,99
1837	1,15	1,78	....	1,69	9,37
1838	1,03	1,60	....	1,94	7,79
1839	84	1,37	1,43	2,12	6,72
1840	50	1,00	1,47	1,99	5,07
1841	60	1,14	....	1,93	5,40

The following table shows the per centage rate of duty charged in Great Britain, on the staple agricultural products of the United States. It will be seen that the average rates on the enumerated articles is two hundred and sixty-four per cent. It is a striking commentary on the principles which govern the trade, the agriculture, and the commerce of that country. At the present moment, according to the late great speech of Lord Brougham on the state of the nation, one million five hundred thousand of the population of G. B. receive aid as paupers, or in other other words, one person in every thirteen, is only prevented from starvation by public aid. How much better off a very large portion of the remainder are, the details of that speech, and the reports from all parts of that kingdom, too painfully show; and yet while our country is overflowing with provisions, which we should be glad to furnish those starving millions, a barrier strong as Gibraltar, is drawn between this country and that, by these duties. When will nations learn that the great object of all good government is the happiness of the people?

Staple Agricultural Products of the U. States.	Average cost of Agricultural products in N. York, March, 1842.	Duty on the same in Great Britain, calculated as per centage on the cost of the articles in N. York.
Louisiana Sugar, .	5 cts. per lb.	270 per cent.
do. Molasses, .	21 cts. per gallon.	400 do.
S. Carolina Rice, .	21 cts. per lb.	118 do.
Southern Tobacco, .	6 cts. per lb.	1200 do.
do. Cotton, .	8 cts. per lb.	8 do.
Spirits from Grain, .	20 cts. per gallon,	2700 do.
Cider, .	15 cts. per gallon,	273 do.
Wheat, .	\$1,25 per bushel,	60 do.
Barley, .	75 cts. per do.	74 per cent
Oats, .	50 cts. per do.	100 rates duty, Feb.
Potatoes, .	30 cts. per do.	84 1842.*
Flour, .	86 per barrel,	60 do.
Hay, .	75 cts. per 100 lbs.	37 per cent.
Salted Beef, .	\$6,50 per barrel,	80 do.
do. Pork, .	\$7,50 per do.	68 do.
Bacon, .	7 cts. per lb.	85 do.
Hams, .	7 cts. per lb.	55 do.
Lard, .	5 cts. per lb.	31 do.
Butter, .	15 cts. per lb.	28 do.
Cheese, .	7 cts. per lb.	32 do.
Linseed Oil, .	95 cts. per gallon,	80 do.
Forests—Timber, .	14 cts. per cub. ft.	96 do.
Staves, .	\$30 per 1000.	110 do.

\* Generally they are prohibited.

## HORSE SHOES.

MANY of the readers of the Cultivator are aware that some two or three years since, a patent was taken out by Mr. BURDEN of Troy, for machinery intended to manufacture horse shoes. Circumstances prevented Mr. Burden from perfecting his plans at the time, and it has not been until lately, that he has found leisure to return to the subject. He has done it, however, and the result is that with his machinery he is able to produce a more perfect shoe than can be in any other way, and with a rapidity which may well astonish those accustomed only to the former slow and laborious methods. The regulating the size of the shoe, punching the nail holes, turning the heel corks, forming and welding on the steel toe corks, are all performed by the machinery, and with a perfection and accuracy the eye and hand are unable to attain. Five different sized shoes are turned out by the machinery, thus securing a proper fit to feet of different sized horses, without heating, or other trouble. Mr. Burden uses none but the very best Swedes iron, of consequence the quality of his shoes will be first rate.

There are probably very few who have properly considered the importance of the horse shoe manufacture to the country, or the quantity of iron consumed in that pro-

duct. The census gave the number of horses at about four millions three hundred thousand. For the whole, it will not be too much to allow two sets of shoes annually, which at the ordinary weight of horse shoes, would use at least twenty-five thousand tons of iron and steel. It is very probable the shoes of Mr. Burden will soon be found occupying the market extensively, if not exclusively, and the estimate has been made that by their adoption, the cost of shoeing horses can be reduced one-half. Any saving of this kind will be extensively and beneficially felt, and by none more so than by the farmer.

## WESTERN FARMING—WHEAT AND WOOL.

THE West is truly a great country. No where else are things done on so great a scale, or when done, is so little said or thought about them. We do not wonder the dwellers on the banks of the father of rivers, and its tributaries, are proud of their country; for there is not another on the face of the globe, that can support such a population from the products of the soil, as that. There is a vast deal of the true yankee ingenuity too in the west, that is rapidly overcoming some of the natural difficulties of position; and by the more complete adaptation of their immense resources, rendering themselves more truly independent, and by the applications of science to objects comparatively of little value, securing some of the necessities as well as luxuries of life. Thus superior wax candles are made from fields of the castor oil bean; and the western herds of swine have not only driven whales out of the great valley, but are fast following them over the Alleghanies. Clothed in silk, feeding on short horns and the finest of wheat, and lighted with elaine, truly the prospect of the west is enviable.

There are some farmers at the west, and the number is increasing, who have farms, and who cultivate them too, in a style worthy of the country in which they live. Go to the farm of the Messrs. SULLIVANTS, near Columbus, and see on the beautiful river flats from twelve to fifteen hundred acres of corn, while their fine flocks are covering a thousand hills; or visit the Illinois prairie farms, such as is the one described below, and you can form some conception of western farming.

Eighteen miles above Peoria, Mr. JAS. UNDERHILL has a farm of twenty-three hundred acres, part of which only is under crops at the present time, but will soon be reclaimed and cultivated. It lies on the Illinois river, on the La Salle prairie, and a short description must be interesting. The first field of this farm you reach in ascending the river from Peoria, is one of five hundred acres; three hundred acres of which are in wheat, and two hundred in corn and oats. The wheat is estimated to yield as an average, only 20 bushels per acre, the land having been reclaimed and plowed for the first time last year; the mass of vegetable matter not being sufficiently decomposed in that time to give a full crop. This field is fenced with a rail worm fence, eight rails high. This fence cost about \$1,200. The second field, which is separated by a road from the first, contains two hundred acres, enclosed with a good substantial board fence, costing \$1,265. This field contained wheat, rye, oats, and corn, all excellent. The wheat was most beautiful, and was estimated at thirty-five bushels per acre. The third field, which lies to the north of the second, and which is now being reclaimed, part of it being broken up and in corn, will contain sixteen hundred acres, all within one fence. Mr. Underhill is intending to put eight hundred acres to wheat this fall; and as much of it will be ground a second time cropped, should the season be favorable, a great crop may reasonably be anticipated; probably not less than 20,000 bushels. The breaking up of the prairie, costs Mr. U. \$2,50 per acre, by contract; and the wheat the past season, has sold at Peoria, for 75 cents per bushel. The prices of the new crop must be lower. Mr. Underhill has built this season, two large barns on the bank of the river, each 30 by 50 feet, from which his grain can be transferred at once to steamboats without handling. In the breaking up, and fencing his farm, for the comfort of the laborers engaged, Mr. Underhill had a house 14 by 20 feet constructed, and mounted on strong wheels, which is drawn from place to place on the prairie, by the oxen of the establishment, as the convenience of the party of laborers may dictate. This house affords good lodging room, a dining hall, place of deposit for implements, &c. It has undoubtedly contributed much to the health of the laborers. Mr. Underhill's farm has a straight line of fence on one side of three miles in length. The foregoing facts, gathered from the Peoria Press, show what an opening the west affords for men of capital and enterprise, disposed to engage in the culture of the soil.

We find it stated in the Buffalo Com. Advertiser, that a gentleman in that vicinity, having a prairie farm of some 500 acres, purchased 2000 sheep, which he placed upon it, under the care of two faithful men as shepherds. They have succeeded admirably. The sheep have kept in the best of health, have been in excellent condition at all times, and the proprietor, as the first fruits of the undertaking, has just received 6,000 lbs of wool of good quality, and which in the Buffalo market was worth 30 cents per lb. This, with the natural increase of the flock, must be a handsome profit on the capital invested, and obtained with very little trouble or risk. The transportation of the wool from Ill. to Buffalo, was about one cent per lb. The great difficulty which has existed in the west to the keeping of sheep, has been the wolves, the prairie wolves in particular; but the settlement and improvement of the country will remove this obstacle, which now, indeed, is easily overcome by a shepherd and his dogs. There are many men in this and the east-

ern states, owners of western lands, which are now lying a dead weight on their hands, who we think might take a useful hint from the above. Sheep may be purchased at a price merely nominal at the present time, and driven the whole distance, experience shows, with little loss. Once on the prairies, daily attendance and supervision is all that is necessary, and the cost of this can be well afforded, where the flock is large.

## SORREL.

WE have had little acquaintance with sorrel, it is true; it does not seem to take on the limestone soils of New-York, but what little we have known of it, has not prejudiced us in its favor, and we have always treated it as a weed of the most worthless kind. Yet here comes the Maine Cultivator, with an article by its worthy editor, teaching us how to cut and cure it for hay, and extolling its good qualities as food for the sheep and horse. Some farmers, he says, let their sorrel stand till ripe, when they cut it for the seed, which, when ground, they think worth as much per bushel for animals, as Indian corn. It is added—"As a proof of the value of sorrel when cured in this way, [cut early, while green, and so as to save the seed on the sorrel hay,] it may not be improper to state, that we have now a flock of fifteen sheep, which were kept the past winter exclusively upon it, and without tasting a particle either of roots or grain. These sheep are now in prime order, and have brought up fifteen lambs, the average weight of which was eight pounds per quarter, besides shearing on an average four pounds of wool per sheep. We lost no lambs during the winter; notwithstanding some of them were lambed in December, and at a time when the weather was unusually severe and cold."

For ourselves, we must say, that we imagine that sheep or horses would eat well cured clover hay, as freely as sorrel hay, and would infinitely prefer it for pasture. Besides, according to our experience, sorrel is not equal to clover as a renovator of the soil, or as a preparative for a wheat or corn crop, and we would therefore advise our friends every where, to substitute clover for sorrel, in their courses of cultivation and cropping.

## STEAM PLOW.

WE find the following in the "Planter's Banner," a paper printed at Franklin, La. We cannot doubt that eventually, the obstacles that have yet prevented the success of the steam plow, will be overcome, and the cultivation of our rich and vast prairies effected mainly by its use. The grand difficulty so far, has been, not to create the power, but to make power effective. When required to drag a great weight, it is found that the wheels of the engine will frequently slide on their circumference; this is sometimes seen on railroads. If Mr. Larkin has devised a way to make the wheel stick, the plows will follow as a matter of course. The failures in England and Scotland, have arisen from this source; and it has occurred to us while reading accounts of their experiments, that strong spikes of proper lengths on the outer surface of the engine wheels, by penetrating the earth, would secure their advance, when in motion.

"We had the pleasure," says the editor of the Banner, "at the recent election in this parish, of seeing Mr. Larkin's model of a steam plow, in operation. There are two engines which are attached to a square frame, with a boiler between them. Each engine is attached to the draining wheels, which are set in motion something after the manner in which the paddle wheels of a steamboat are caused to turn. In front there are two guiding wheels, which are easily turned by means of a draw wheel. The plows are attached to the rear of the machine. This locomotive was set in motion by Mr. Larkin, in the presence of a large number of persons, and various opinions were expressed as to its probable success. We heard several intelligent planters say they were confident Mr. Larkin's invention would answer all his expectations. In the experiments that have hitherto been made in plowing by steam, the great difficulty has been to find a fulcrum on which the power of the machine might act. The resistance of the plows in the earth, has been found so great, that although the power was in the machine, still it had not a sufficient prop or fulcrum to act upon. Mr. Larkin has taken this difficulty into consideration, and he says he can overcome it. We sincerely trust he may."

## BARLEY AFTER POTATOES.

WE find the opinion is prevalent to some extent, that barley will not succeed well after potatoes; and a late number of the Maine Farmer, gives some instances of a field sown with barley after potatoes and corn, in which the barley was good after the corn, but a failure after the potatoes. Our experience has been different from this; having raised as good barley after potatoes, as after any other crop. Last year, wishing to seed down a field on which potatoes and corn had been cultivated the year preceding, it was sown to barley, with herds grass and clover. It was one of the finest crops of barley we have ever raised, and that on the potatoe ground was at least equal to that from the corn land. We should have no more fears of a failure of barley after potatoes, than of spring wheat or oats; but should consider our prospect of a good crop of either, a faint one, unless the root crop had been well manured and cultivated. Barley is a very good crop to sow grass seeds with, but whether this or other spring grains are used, if we would insure success, the roller should be used.



## Answers to Inquiries, &amp;c.

Our friend J. Trevor, M. D., of Allegany city, Pa. who makes some inquiries of us respecting Hamilton, Madison co., is informed that the purposes he aims at in the education of his children, and their instruction in the practice of agriculture, at the same time, can doubtless be secured at that place; and perhaps as advantageously as at any other. He will find that vicinity healthy; the soil generally good and suitable to the cultivation of most crops; labor to be had at the rate of from ten to twelve dollars per month; and farms doubtless to be purchased or leased, as he may desire. Under his circumstances, as detailed in his letter to us, we think leasing for a year or two, to give some little time for examination of farms and localities, would be preferable to purchase. Fifty or sixty acres will keep his sons, and one hired man, with abundance of employment, as he has suggested; small farms and high cultivation, is the true course for the farmer, and when this latter condition is reached, more land can be added at pleasure. We highly approve of Dr. Trevor's intention to make his sons educated farmers; and if more of the dwellers in cities, or professional men, would follow his example, and thus furnish their children the means of honest employment, we should doubtless be spared many of those instances of worthlessness and profligacy, which now too frequently accompany the possession of wealth and leisure.

## PLOW FOR CLOVER, &amp;c.

A correspondent at Selim's Grove, Pa. says—"The practice of turning over heavy growths of clover is gaining very rapidly in Middle Pa., and its advantages to the farmer are very apparent wherever the system is pursued. The task, however, of plowing in heavy clover, is a difficult and tedious one, owing to the fact of our having here no plow which will run under such circumstances without choking or clogging so much as to render it necessary every few rods to clear the plow of the tangled clover, or have a boy with a fork to keep it clear. Even with all this precaution and expense, the clover will not be completely covered, and the furrow slices will be broken and irregular. The object of this communication is to ask whether you are acquainted with any plow by the use of which, the above difficulties can be overcome. We want a plow which will run in heavy tangled clover without clogging—which shall turn a neat unbroken furrow slice, and by laying it flat, completely cover up the clover.

"One more inquiry. Are you acquainted with any plow which possessing the above properties unites with them the quality of turning the furrow slices all one way, being a right and left hand plow. We conceive the matter of having the whole field turned in one direction as of great importance. It would have no open or dead furrows; it would save the time consumed in walking the horses across the ends of the lands in order to commence the next furrow; and in harrowing it would also be of advantage, for being thus plowed, you may without any trouble, keep every spire of grass out of sight, and leave the land in the finest condition possible."

The best plow we have seen, or used, for turning a perfectly flat furrow, is the Worcester plow, (Ruggles & Mason's) although Prouty and Mear's for flat furrows, is not much inferior. But we know of no plow which will pass through heavy lodged or tangled clover, without clogging, unless some preparatory steps are adopted. If the clover stand erect, passing a heavy roller over it, in the direction the plow is to run, will lay it smooth and obviate many of the above difficulties. If the clover is badly lodged or tangled, it has been found a good plan to give it a thorough harrowing in the same direction, as this will straighten the clover as well as lay it down. If either of these methods, however, are adopted, the necessity of plowing in lands is obvious.

As a right and left hand, or side hill plow, there is nothing equal to Mooser's Ithaca plow, for ease of draft and perfection of work; and unlike the common side hill plows, it works exceedingly well on level or plain land. In the use which we have seen made of this plow, it did not lay the furrows as flat as the Worcester plow, which in plowing in clover would be an objection, while on some soils, it would be a decided recommendation.

Our experience, and that of many farmers in the wheat growing districts of New-York, would lead us to feeding off the clover, after it had attained a heavy growth, by sheep, or rather breaking it and trampling it down, previous to the use of the plow. We prefer sheep to any other animal for this purpose, as the clover will be fed or trampled more equally, and all the manure will be left on the field. But however the clover may be used, we can assure our Pennsylvania friends, that by its liberal use, they are in the sure way of enriching their farms and themselves.

## CHESS.

Mr. T. HUDSON, of Ohio, a gentleman who our readers are already aware, is a firm believer in the transmutation of grain, writes to us that he has commenced a series of experiments with *wheat, rye and oats*, for the purpose of satisfying the community that chess may be produced from other grains; and he adds—"With regard to my experiments, I intend they shall be accompanied with such proof as will satisfy the most sceptical; and the result, with such proof, may hereafter be forwarded for publication in the Cultivator." We perfectly agree with our friend Mr. H., that it is very desirable this vexed

question should be settled, (we indeed consider it to be so most conclusively,) and shall expect to hear, if his experiments are so conducted as to preclude the possibility of mistake, that he has wholly failed in the production of chess.

## OIL FROM HEMP SEED.

We regret that we are unable to inform our subscriber at Canton, Fulton, Ill. of the quantity of oil a bushel of hemp seed will produce. Others have made the same inquiry; and if any of our subscribers have practical knowledge on the subject, and will communicate it for the Cultivator, we shall consider them as conferring a favor. The great increase of the hemp crop at the west, the present year, renders this information very desirable.

## SOWING CLOVER SEED IN THE FALL.

G. T. THOMPSON, of Addison co. Vt., asks—"Is it a favorable season to sow clover seed in the month of September, with rye, after the first harrowing and before the last, so as to be covered with the said last harrowing? The doubt felt is, whether it will not come up before winter sets in, and being too tender to endure the severe frosts of our climate, be lost." The instances in which we have known clover sown in the fall at the north, have not spoken much in favor of the practice; the frost usually destroying the young plants, and invariably so on ground liable to heave. The drouth will sometimes destroy clover sown in the spring, but we have rarely known it to fail, when a dressing of plaster was given the field after the young clover plants were up. Our practice is to sow all grass seeds in the spring, either on winter wheat or with spring grains.

## CHINESE PROPAGATION OF FRUIT.

An article has been going the rounds of the newspapers of the country, stating in substance that the Chinese propagate fruit by selecting such limbs as can best be spared from choice fruit trees, and by means of strips of cloth, binding around them two or three quarts of moist earth. This is not allowed to become dry, and in a few months it becomes filled with small roots and fibres thrown out from the branch. The branch is then separated below the earth and planted, thus forming a young tree. J. KING, Esq. of Dubuque, Iowa, has called our attention to this statement, and asks "whether we have ever known this method practiced in the U. States, and if so, with what success?" Personally, we have never seen this operation performed; but we have noticed several accounts of its successful performance. Indeed there can be no doubt of this, as it is only the mode of propagation by layering, with this difference, that instead of the branch being brought to the earth, the earth is brought to the branch. The shooting of the roots may take place without ringing, but to ensure success, a narrow strip of the bark should be removed from the branch before the earth is applied. This operation will succeed but when the leaves are well developed, as their presence is necessary to elaborate the sap for the formation of the roots at the place of separation.

## POULTRY INQUIRIES.

An "Inquirer" has submitted to us a variety of queries in relation to Poultry; the nature of which will be sufficiently indicated by the replies, without occupying a column by their insertion.

1. As to buildings, it matters not how cheap and simple the poultry house may be, if it is made to combine the qualities of security from vermin, ventilation in summer, and indeed at all times; and warmth in winter. We would not advise any farmer who does not intend to make the rearing of poultry an important part of his farm business, to make any expensive structures for their use.

2. Hens should not lay near those that are setting, or with them, as trouble will most assuredly ensue. If two hens wish to set together, shut one of them up for a few days, and there will be no difficulty.

3. Boxes for hens to lay, or set in, are best when placed around the lower part or floor of the building, rather than in tiers above each other, as they will be less likely to interfere with each other. The front part of the boxes should be partially closed, as fowls on their nests dislike notice.

4. Hens might escape small vermin by having their nests on the ground, but eggs will rarely hatch well in that position. Straw or hay should form the nest.

5. The best preventive of vermin we have ever known, is a box of sand and ashes for them to dust themselves in at all seasons. We have never known fowls injured by vermin, that had access to such boxes; and if provided with these, and limestone gravel, they will be rarely troubled with the gapes. We have kept poultry for thirty years, and have never, to our knowledge, lost a fowl from this disease. We have little doubt, that where the premises occupied by poultry are once infested with vermin, removal will be useful; or a thorough cleansing and whitewashing may be adopted.

6. We know of no way of preventing hens from laying where they please, unless by confining them to their houses or yards. An egg placed in a nest will frequently attract them to that spot, but not always. Fowls will, however, always do better with the same feeding, to run at large at all seasons, the coldest weather excepted, than if confined to houses or yards.

7. The Malay and the Mollucca are the same, or with very slight variations. The Dorking originated in Sur-

ry, England, is pure white, and is distinguished from all other varieties by having five toes on each foot. The Game breed of fowls is slender in form, and their eggs small, but their flesh is superior to all other kinds in richness and delicacy. Their pugnacious disposition is the great objection to this breed.

8. Breeding in and in, affects fowls as it does other animals, very injuriously; and a change of cocks occasionally, or as often as every second year, is necessary.

9. With the breeds of fowls commonly reared in Virginia, we are unacquainted, and know not whether the Dorking or Poland breeds exist there in purity or otherwise.

10. Eggs may be kept for a long time in salt; but eggs intended for setting, should always be as new as possible; keeping them in any method injures them for this purpose. Neither corn meal, bran, or sand, will preserve eggs as well as salt. Salt prevents that increase or variation of temperature that all these allow. Protection from atmospheric change, and a low temperature, are requisite for the keeping of eggs; and where salt is used, a few inches of this material is all the covering necessary.

11. Sulphur is one of the best substances for freeing all animals from vermin, by feeding it to them occasionally. Although we have never known the slightest injury result from its use, excessive quantities might possibly prove hurtful, and they are certainly useless.

12. The common duck or mallard is the only variety that can be profitably reared, as all others appear less hardy, require more care, and being wilder, are more disposed to make their escape. We are not aware that the wild turkey has ever been crossed with the domestic one, or that a successful attempt has been made to domesticate them. Such attempts appear to be scorned equally by the wild Turkey and the Partridge.

## FEEDING CATTLE.

Our correspondent "E. M." referring to our statement of Dr. Mease's method of fattening cattle, given at page 126 of the Aug. Cultivator, asks—"Does Dr. M. mean in the above, that each animal will consume 30 quarts of provender a day, and from that up to a bushel and a half; or does he mean that he should be fed with 10 to 16 quarts a day? And is the half peck of boiled potatoes with a handful of Indian meal strewed over them, to constitute the animal's daily allowance at the expiration of the first ten days, or is it to be added to the meal? Will the Editors please explain?"

The 10 or 16 quarts to each animal, is the quantity for each day, to be divided into three feeds. The peck of boiled potatoes with the handful of meal, three times a day, is a substitute for the meal fed before, and constitutes part of that change of food which the Dr. considers essential to success in feeding. This is the case with the chopped pumpkins, the sugar beet, or turneps; but if "E. M." will refer to the August number, he will see that whatever may be the nature of the principal food given, the corn meal, or corn and oat meal, must be its unfailing accompaniment.

If "E. M." can have access to Mr. Colman's 4th report on the agriculture of Mass., he will find some statements on the feeding of cattle, which will materially aid him in understanding the nature of the best process to be adopted. In some of the examples there given of stall feeding, four quarts of meal, and half a bushel of potatoes, with hay, is the daily allowance; in others, eight or nine quarts of meal, with hay, is the food given; in another, eight quarts with hay, is the daily allowance, and ten quarts is considered enough for any animal. In all cases, excessive feeding is considered injurious; and we have little doubt, should "E. M." feed his animals three times per day, with the daily allowance recommended by Dr. M., he would soon have no animals to feed. Experience proves, that we have for stall feeding animals, nothing equal to Indian meal, or a provender made of one-third oats and two-thirds corn; and as cloying is the principal difficulty to be apprehended, occasional changes of food, or the usual food in lighter quantities, may be adopted with the best success. Perhaps in no part of the world is stall feeding cattle, better understood or more successfully practiced, than among the farmers of the fertile valley of the Connecticut in Massachusetts; and from them lessons of the greatest value on this topic may be received.

## QUEEN BEE—AGAIN.

OUR unbelieving friend, Mr. Palmer, has sent us another note on the subject of the Queen Bee, in which he asks us whether our opinions on the matter at issue, have been formed from experience, or from information obtained from others. We answer, from both. We have kept bees for years; and we have also availed ourselves of the information in the best works on the subject, and we must say that on the subject of the three kinds of bees, neuter, drone, and queen, the knowledge derived from both sources has perfectly corresponded.

We wish to correct a trifling error into which Mr. P. in his note, appears to have fallen. He maintains that the existence of a queen bee for the purpose of depositing the eggs, is an anomaly in nature, nothing like it being found elsewhere, from the highest to the lowest of animal existence. Not to mention many other instances of this same law of nature, it is enough to refer Mr. P. to the *Terres fatale*, or white ant of the tropics, in which the female that deposits the eggs becomes a perfect monster in size while in the gravid state, and Smeathman, Edwards, and other writers, estimate the number of eggs

she deposits by millions. The laborer or neuter, male, and gravid female, of the *Termites*, may be seen on the 230th plate of Wilson's *Entomology*. We are gratified in being able to inform Mr. P. that we have a specimen of each of the bees named above, which we shall be happy to show him, should he visit Albany.

#### ARTIFICIAL MANURES.

THE preparation and use of manures constitutes one of the points in which the advance of modern agriculture is most apparent. For this advance, we are indebted to the application of chemical science to an investigation of the substances most commonly used to promote the growth of plants. An imitation of the operations of nature has thus been effected, in which there has been a decided improvement on the original, as the change necessary to convert organic matter into the fertilizing material is effected in a very short time; the bulk diminished while the efficiency is increased; and the disgusting, offensive character belonging to some of the original compounds entirely done away. Substances, too, once wasted, or rather considered of no value, are now in the course of a few weeks converted into manures of the first quality. Every discovery of this kind is of importance to the agriculturist; for although some of them it is probable will not be made useful on a large scale, and some of the preparations cannot become common in this country; still there are many which we are confident will be extensively used everywhere; and the better they are known, the more highly appreciated by the farmer or gardener.

Poudrette, or prepared night soil, is one of the most valuable of these prepared manures, concentrating in a great degree the elements of fertility; and as prepared, being easily portable, used with facility, perfectly inoffensive, and very powerful in its action. The two most extensive manufactories of this article are the New-York Poudrette Company—D. K. Minor, agent New-York city; and the Lodi Poudrette Company at Hackensack, New-Jersey—A. Dey, New-York city agent. We are pleased to learn that the demand for the products of these manufactories is constantly increasing, and the proofs of the value of the manure so made rapidly accumulating. The value of poudrette, compared with good stable or barn yard manure, is estimated as one of the former to from 12 to 15 of the latter; and some have even estimated the difference as still greater. When we remember that this manufacture is designed to convert what has always been a nuisance and source of multiplied diseases in our cities into a means of fertility and wealth, its importance will be duly estimated.

Another preparation, which is receiving some favor, is that produced by Bonner's patent, in which all ligneous or woody plants, such as straw, cornstalks, weeds, roots, sea grass, and in fact all vegetable matters, are converted into manure in a much shorter period than by the usual course of decomposition. It is pronounced as efficient as stable manure, more lasting, and costing but little. The process of preparing this manure has nothing difficult about it, and is said to be easily and expeditiously performed. It is probable the patent will for a time, even were its value unquestioned, prevent the extensive use which this mode of preparing vegetable matter might otherwise have obtained. Of the peculiar forms of the process we know nothing; but the testimony in its favor from those who have tried it, appears ample. Patent manures, patent implements, and patent medicines, are very apt, however, by practical farmers to be placed in the same category.

The English agricultural journals have within the past year frequently alluded to the qualities of a new fertilizing preparation called Daniel's patent manure. The specifications of the patent have been received in this country; and though evidently intended to mystify, rather than disclose the real process of making the manure, it is easy to see that a powerful manure must be the result of the combination. According to the specification, the materials of the manure are divided into three classes. First: ligneous matters, peat, straw, weeds, &c. Second: bituminous matters; such as mineral coal (bituminous doubtless) asphaltum, pitch made from coal tar, or other pitch, mineral rosen, and also tar. Third: animal matter; such as butcher's offal, graves, flesh of dead animals, also fish.

The ligneous matters are reduced to powder by grinding, or by the action of caustic lime. The bituminous matters are also ground into powder; if sticky like pitch, a small quantity of dry quick lime is added to prevent adhesion to the machine; if liquid, they are converted into vapor by dry distillation, in which vapor the ligneous materials are saturated; or if preferred, the soft bituminous matters are dissolved in water, to which caustic alkali has been added, and in this the ligneous matters are steeped. The animal matters are mixed with the ligneous and bituminous ones, and then the whole reduced to a powder.

Such a preparation cannot fail to be a fertilizer of the most powerful kind, though it is evident the process needs much simplification before it can be adapted to the use of farmers generally.

Guano is probably the most powerful natural manure known; and the artificial one that shall most nearly resemble that, will doubtless be the most valuable. Voelckel's analysis, the latest and best of this substance, as given by Dr. Dana in his *Muck Manual*, shows that it contains in the various salts of ammonia 32 parts in 100, sulphates of potash and soda 9 parts, phosphate of lime 14 parts, soluble geine or humus 12 parts, and insoluble under-

mined organic matter 20 parts. The artificial manures are valuable in proportion as they furnish the materials for the ammonia, phosphates, and sulphates, which abound in guano. It is likely, indeed certain, that the immense masses of guano existing on the islands of the Pacific, are in a very different chemical condition from what they were when first deposited by the sea fowl that frequent those coasts and islands; consequently, in no fresh manures in any country can we expect to find the same combination of fertilizing substances as in guano. In no other country could such masses have remained without the wasting or dissipation of their most valuable parts, or their entire substance; the nearly total absence of rain in the guano region preventing such a result. The guano is therefore not only the result of the accumulation, but the chemical combinations of ages, and what agriculture requires of science, is the discovery of the means of effecting in a short time what nature has been centuries in performing.

In all preparation of artificial manures two conditions are requisite; first, value as a fertilizer; and second, facility and simplicity of preparation. Without the first, the labor of manufacture is lost; without the second, few farmers will be able to avail themselves of the benefits such manures offer. Thus far, we are inclined to the belief that of all the artificial manures, poudrette best fulfills these two conditions; but it by no means follows that other combinations may not be discovered, equally simple, and more powerful. Of one thing we may be assured; all such preparations, when brought within his reach and his means, will be hailed by the farmer with pleasure.

#### CANNOT.

WE very much question whether there is a word in the English language productive of as much mischief as the one placed at the head of this article. Indeed, it has no business where it is so frequently found; for it is an intruder on our forms of speech, and deemed unworthy of notice by the lexicographer; yet there are some men who are always using it, and find it ever at their tongue's end. The man who admits this word into his vocabulary is regularly done up; henceforth he is good for nothing, because he will perform nothing. We like a man, aye and woman too, who at proper times can utter a plain plump No; for that little word may be their salvation; but if they meet you with a canting cannot, depend upon it, they will—"for a consideration."

Ask your friend why he runs in debt for things for which he has no possible earthly use; and he will tell you he cannot avoid purchasing things when offered at a bargain, even if he has no present use for them. The time, however, will come when there will be a cannot of another nature to arrest him; and that will be when his foolish purchases have so exhausted his finances, and reduced his credit, that no one will trust him.

Ask that farmer why he allows that bottle of spirit to be carried into his harvest field; and as the ill-cut and scattered grain attests, to his manifest loss, and he replies that he has been so long in the habit of doing it, that he cannot do without it when working hard. All nonsense. Thousands, if not millions, have demonstrated the contrary before his face the present year. The truth is, the farmer loves the "good creature," and his cannot is the partial opiate he forces upon his conscience to disguise the fact.

Ask that farmer why he allows his fields to be overrun with thistles, johnswort, daisies; his crops choked with stein kroust, chess, and cockle; his corn overtopped by pigweeds; and his garden by chickweed, purslane, &c.; and he answers he cannot attend to them all, he has so much work to do, that some must be neglected. Such an answer only makes a bad matter worse. It proves that he is a bad calculator, as well as a bad worker. The farmer has no business to plan so much work, as to be unable to perform every part well; and the cannot in the case can deceive no one.

"Neighbor, the bars to your cornfield are very defective, and the gate to your wheat field is so insecure, that I wonder at your leaving them in such a condition, when there are so many unruly cattle running at large." Ah, he answers, I know it well enough. I intended this week to have made some new bars, and had a new gate hung; but have lost so much time in attending that lawsuit, that I cannot do it now, and must put it off till next week. The next sunny morning, he finds a whole herd of unruly animals in his fields, his crops half destroyed, and a beautiful foundation for another lawsuit laid.

See that poor man, once rich and talented, reeling through the street! He is a sacrifice to this accursed cannot. A beautiful wife has wept tears of entreaty; friends have uttered words of remonstrance; reformed inebriates have taken him by the hand, and pointed out the way by which he may be again a man; but to all the reply, a reply fatal to hope, has been, I cannot. It is a lie. He can. He can forsake his cups; he can again bring joy and gladness to his family; he can again rejoice his friends; but he must first renounce and repudiate this soul and body destroying cannot.

Young man, whatever may be your profession or pursuit, if you would hope for success, never use the word cannot. You may as well attempt to swim with a Scotch grindstone at your neck, and a Paixhan shot at your heels, as to expect to accomplish anything worthy of a man while this word is in your vocabulary. When the gallant Miller, at the battle of Niagara, was asked by Scott if he could carry the enemy's batteries; suppose, instead of the determined "I'll try," he had whined out

"I cannot," where would have been his fame, and what the result of that day? Cannot, accomplishes nothing but the ruin of him who uses it.

Farmer, keep shy of cannots. Use not the word yourself, and be careful how you employ those that do. Napoleon never allowed the use of the word, impossible; and in the management of a farm there should be no place for cannot. You can do all that is necessary to be done, if you set about it in the right way, and at the right time. If you do not, your labor will be like that of Sisyphus; ever beginning, never ending. Neglect nothing; keep a watchful eye over everything; see that every part moves in harmony, and together; and you will have no use for cannot.

#### TRIAL OF PLOWS.

WE have received an interesting report of a committee appointed to superintend a trial of plows, near Baltimore, in May last. The committee were George Beltshoover, Ed. P. Roberts, and Gideon B. Smith; names which are a sufficient guarantee of the skill and fairness of the trial. The ground selected "was a clay mold, which from having lain in grass, in a common, for many years, had become indurated, and presented great resistance to the plows." We are unable to present the whole report, and have presented in a table, the results of the trial with the several plows submitted to the committee.

Plow.	Depth of furrow.	Width of furrow.	Force.
1. Barnaby & Moorer's,.....	8 2-0 in.	12 in.	350 lbs.
2. Mott's Wiley Plow,.....	6 6-9	13 1-6	362
3. Prouty & Mear's center draft Plow, Boston,.....	5 1-9	12 1-6	500
4. Howard Plow, Boston,....	5 7-9	14	650
5. The Davis Plow. This plow worked well, but was withdrawn before trial with the Dynamometer.			

The committee remark, "the task to the committee, of deciding, where such excellence was to be found in each of the implements contending, was one of difficulty, and would have been more so, but for the various purposes to which the Barnaby and Moorer's plow is adapted, it being in fact a plow of all work, and from the fact of its executing its work with so much less draft than either of the others."

In commenting on the qualities of the several plows submitted to trial, the committee say of Barnaby & Moorer's side hill plow, the one used:—"There is a peculiarity about this plow which is worthy of note. On the bottom of the furrow, and on the land side, it cuts out fully 12½ inches of the earth, so as to reduce resistance to the turning of the succeeding furrow, thereby facilitating, not only that operation, but ensuring the exactitude with which it is performed, leaving a clean and broad furrow behind, in which the furrow horse can walk, and preventing the treading of the ground in turning."

Nos. 2, and 3, it is said, were new plows, and unscoured, a fact which should be remembered when the difference of draft between these and No. 1, is looked at; although it cannot account for but a small part of that disparity. The force was ascertained by the Dynamometer, and the result stated, was the average of a number of observations. We are glad to record such experiments, and hope such trials will become numerous. The plow is the grand implement of agriculture, and every effort at improvement should be encouraged and rewarded.

#### AGRICULTURAL SOCIETIES AND FAIRS.

##### NEW-YORK.

Tioga.—Thos. Farrington, Pres't; C. F. Johnson, Owego, Sec. Fair at Owego, Oct. 8, 6.

Farmer's Society, Butternuts.—Francis Rotch, Butternuts, Pres't; Thomas Hollis, Gilbertsville, Cor. Sec. The Fair was held at Louisville, Sept. 22. The Plowing Match is to be held at Garrattsville, Oct. 18.

Otsego.—Elisha Doubleday, Cooperstown, Pres't; Chas. McLean, Cherry-Valley, Sec. Fair at Cooperstown, Oct. 8, 6.

##### MASSACHUSETTS.

The Hampshire, Franklin and Hampden Society will hold their Twenty-Fifth Cattle Show at Northampton, Oct. 12, 13. Edward Dickinson, Pres't; Harvey Kirkland, Northampton, Sec'y.

Worcester.—Levi Lincoln, Worcester, Pres't; Wm. Lincoln, Worcester, Cor. Sec'y. Fair at Worcester, Oct. 12.

Plymouth.—Fair at Bridgewater, Oct. 12.

Bristol.—Fair at Taunton, Oct. 12.

Middlesex.—Fair at Concord, Oct. 8.

##### MAINE.

Kennebec.—Fair at Readfield, Oct. 12, 13.

Cumberland.—Fair at Gray's Corners, Oct. 19, 20.

Oxford.—Fair at Norway, Oct. 19.

##### CONNECTICUT.

Union Society, embracing the towns of Bristol, Farmington, Berlin, Southington and Burlington.—Tracy Peck, Bristol, Pres't; Eli Moore, Kensington, Sec. Fair at Plainville, Oct. 12.

##### DELAWARE.

New-Castle.—James W. Thompson, Pres't; J. A. Lockwood, Cor. Sec'y; P. O. of both, Wilmington. Their Fair was held at Wilmington, on the 14th and 15th of Sept.

##### PENNSYLVANIA.

Philadelphia.—Fair at the Rising Sun, Germantown Road, Oct. 12, 13.

##### INDIANA.

Futnam.—Win. D. Allen, Green Castle, Pres't; A. C. Stevenson, M. D., do., Rec. Sec'y; A. H. Nichols, Spring Valley Farm, Cor. Sec'y. Fair, Oct. 8. Among the Premiums to be awarded are twenty volumes of the Cultivator.

LARGE MELONS.—The editor of the Springfield Post, boasts of a water melon weighing 37 lbs. We can beat that. We recently assisted our friend Walsh, of Lanesburg, and some other friends, to despatch a water melon from the garden of a gentleman near this city, which weighed forty-three pounds. It was decidedly the best, as well as the largest we have ever seen.



## Foreign Correspondence.

## AG. SOCIETIES OF GREAT BRITAIN, &amp;c.

(From our own Correspondent.)

London, Aug. 19, 1842.

THE Yorkshire Agricultural Society held their fifth annual meeting at York, last week. The sum of £650 was expended in premiums. The Council dinner was held in the Guildhall on Tuesday, Earl Spencer presiding, in the unavoidable absence of the President, Lord Wharnclyffe. The great dinner and meeting of the members was held on Thursday, when about 800 persons were present. The show and meeting altogether, was much superior in every way, to that of last year. Some excellent and appropriate speeches were made on the occasion, by the noble Chairman, the Earl of Zetland, Lord Feversham, Lord Wenlock, Sir John Johnstone, Bart. M. P., Mr. Milnes, M. P., Mr. Stanfield, M. P., and others. Richmond, Thirsk, and Doncaster, were the competing places for the next show; each offering £150 donation, their town hall for the meeting, and a field for the show. Doncaster was selected.

At the 6th annual meeting of the East Riding Ag. Association, recently held at Beverly, a hog pig of the Lord Wenlock race, bred by Mr. R. Moore, of Brandesburton, was exhibited. This surprising animal, although not two years old, measured 82 inches from poll to rump; in girth, 80 inches; stands 44 inches, and weighs nearly two hundred stones. A portable saw mill, exhibited at this meeting by Mr. Crosskill, agricultural implement maker, of Beverly, attracted many curious inquiries.

The annual agricultural meeting and general show of live stock, implements of husbandry, roots, seeds, &c. of the Highland and Ag. Society of Scotland, commenced at Edinburgh, on Monday, the 1st inst., and lasted the entire week. The exhibition was of unexampled extent, being larger than the famed show at Warwick, last year, which was the greatest the Society had held up to that time. The amount of stock, &c. entered, was greater than upon any former occasion, comprising upwards of 1100 animals, besides a great variety of implements, &c. The Edinburgh papers which we have received, all contain full and excellent reports of the proceedings. The public show took place on Tuesday, and at one period it is stated, there could not have been less than 20,000 individuals in the yard. The money collected for admission to the show on this day only, amounted, I understand, to upwards of £1300, the largest sum ever drawn on any similar occasion. The nearest approach to it, was at Glasgow, where upwards of £800 was collected. A peculiar feature in the exhibition, was a gallery erected for the ladies; having in front a raised platform, along which the prize animals were passed, to gratify the fair visitors. About 2000 persons were present at the grand dinner of the Society, which took place under the presidency of the Duke of Richmond. The principal speakers on the occasion, were the Earl of Mansfield, the Duke of Roxburgh, the Earl of Roseberry, &c. A large deputation attended from the Irish Ag. Improvement Society. The Chairman urged upon the Society the advantage of distributing gratuitous copies of the Transactions and Journal, among the members, after the manner of the English Ag. Society. A lecture was delivered on Monday, before the members, by Dr. H. R. Madden, "on the condition of the soil at seed time, as influencing the future prospects of the crop;" and another lecture on Wednesday, 3d, by Mr. Hyett, of Painswick, Gloucester, "on the practice of administering artificial solutions to the sap vessels in growing trees, in order to improve their color, durability, flexibility, strength, fragrance," &c.

In the list of patents sealed last month, is a singular one, viz: to "Lady Ann Vavasour of Melbourne Hall, Yorkshire, for improvements in machinery for draining land. Sealed 7th July. Six months for enrolment." Success attend the scientific efforts of the ladies of England, say we.

The Royal Ag. Improvement Society of Ireland, hold their second anniversary meeting next year, at Belfast.

Messrs. Blackwood announce for publication early next month, a work on "The Grasses of Scotland, containing a scientific description, and illustrations of about 130 distinct specimens. By Dr. R. Parnell, F. R. S. of Edinburgh." Price 20s.

A public meeting was held in the city of Cork, the other day, for the purpose of forming an Agricultural Museum in that county; the idea is an excellent one, and ought to be adopted and extensively acted upon, in every county, city and town of England. There are several central ones connected with the chief agricultural societies situate at London, Edinburgh, and Dublin.

A public monument to the memory of the late Thomas Wm. Coke, Earl of Leicester, one of the greatest friends and patrons of agriculture, the world has hitherto seen, is shortly to be erected. About £3000 has already been subscribed towards this laudable object.

The leading farmers and agriculturists of the kingdom, have also recently subscribed about £400, for a service of plate to W. Shaw, Esq. editor of the *Mark Lane Express* and *Farmer's Magazine*, and one of the projectors of the Royal Eng. Ag. Society, for his zealous and indefatigable exertions in the cause of agriculture.

EXTRAORDINARY RAILWAY TRAIN.—A train from Paddington to Taunton, carried the immense and unprecedented number of 2,115 passengers! the great attraction being the agricultural meeting at Bristol.

## LETTER FROM SCOTLAND.

County of Roxburgh, Scotland, July 6, 1842.

The Editors of the Albany Cultivator:

SIRs—In the Cultivator of May last, you have done me the honor of inserting my communication of Feb. 28, 1842, to which you have appended a flattering note of thanks with a request of continued correspondence.

I should have much pleasure in contributing my mite to your excellent miscellany, could I fix upon farming topics within the scope of my information and experience, likely to interest your readers, and there rests my difficulty, as the husbandry practices in which I pretend to be, in some degree, versant, are not generally applicable to the climate and localities of the States on the other side of the Atlantic, or within the principal circulation of your journal. And I am not competent to write upon the rotation of crops and application of manures where Maize, or Indian Corn, Pumpkins, and other tender vegetables are cultivated as field crops, as in the United States. I may however venture some remarks upon one vegetable cultivated extensively in America, and in most other civilized countries. That is

POTATOES.—In the pages of the Cultivator, I have observed frequent mention made of potatoes, but more said upon the excellence of the Rohans and other varieties, than of the most approved methods of culture; and I have not seen any remarks upon diseases of the plant, with methods of cure or prevention. As potatoe crops are subject to disease in this country, I will make a few observations upon that subject, and as an introduction, give a short detail of our usual method of culture.

When potatoes are here planted as a field crop, they are set in drills 30 inches apart. The drill is opened by the plow. The manure is spread along the bottom of the drill. The sets are placed upon the manure at from 9 to 12 inches distance, one row of sets in a drill, and they are covered by the plow. When the plants rise above ground, they are hand-hoed in the row, and horse-hoed between the drills. When the tops are sufficiently high, they are earthen up by the plow. Such weeds as rise after earthing up, are pulled out by hand. That operation finishes the processes of culture.

The diseases to which our potatoe crops are subject, are *curl* in the stem and leaf, and *rot*, also called *taint* and *dry rot*, in the sets. Sixty years ago, when potatoes were but partially grown as field crops, we had no complaint of either of those diseases. *Curl* became prevalent about the commencement of the present century. And in the last ten years, *rot* has made great havoc, and caused much loss to the growers and comparative high prices to the consumers. *Curl* is not attended by total loss of crop, but tubers growing from curled leaf and stem, are small, cankered, and bad tasted, probably deleterious. The result of *rot*, is an entire failure of crop, the sets, whether whole potatoes or cuts, although apparently fresh when planted, become effete and appear to have lost the vegetative power, the eyes make no effort to push out shoots. We have no cure for those inveterate diseases, but we use preventives with good success, which will be explained by the following remarks:

Sets for planting, when taken from fully ripened dry mealy potatoes, are more liable to rot and curl, than when taken from *unripe* watery roots. Hence, potatoes grown upon gravelly or sandy soils in warm sheltered situations, are more liable to disease on replanting, than those grown upon cold moory soils in elevated situations. Indeed, the latter, if taken up before they are injured by frost, and well secured in winter, seldom, or never, fail of producing healthy good crops, when used for sets in the following year. We therefore endeavor to procure potatoes for planting, from cold high land. In some places, the desired sets cannot be readily procured; in that case, we provide substitutes by planting roots *late* in the season, and taking up the produce before they are thoroughly ripe; but it is the safest method to procure sets grown upon cold moory or peaty soils.

Tubers raised from potatoe apple seeds and planted as sets for a crop, are not so liable to disease when replanted in several succeeding years, as are the sets from varieties which have been many years in cultivation.

Early sorts of potatoes usually grown in gardens, are not so liable to disease as the later sorts grown in the fields, even if the early sorts are repeatedly replanted in the same garden. I assign two reasons for this apparent phenomenon. First. Early varieties grown in gardens, are generally of *younger* lineage than the late sorts grown in fields. Gardeners are more minute observers of the productions of nature, and more attentive to the *renovation* of plants they cultivate, than farmers are. They raise new varieties of tubers from potatoe seed, which farmers seldom attempt. Second. Potatoes are planted much earlier in gardens than in fields, while moisture remains in the ground and before the spring drouth sets in; and yard dung used by gardeners, is more reduced to a state of active manure, than when applied to field culture.

Farm land when intended for potatoe crops, should be cleaned, at least in part, in the preceding autumn. *Foul* land, that is, infested with couch grass and other running rooted weeds, intended for potatoe crops, and the cleaning processes deferred till spring, the drouth frequently sets in before the cleaning is fully accomplished, the moisture evaporates from the cleaning operations, and the land becomes as dry as dust. A good crop of potatoes cannot be expected when the sets are planted in land in such a dry state, especially where long dung is used, and copious rains do not fall soon after planting.

Potatoes planted *whole* are not so liable to rot or taint,

as when cut into *sets*. In the latter case, it is a good precaution to dust the sets with powdered lime, which acts as a stiptic and prevents the sap exuding from the wounds, and the coat of cement repels the attacks of insects.

Some varieties of *kidney* potatoes should either be planted *whole*, or, if cut, the sets should be taken from the top ends of the tubers. The bottom eyes do not vegetate.

Potatoes intended for planting, should be carefully preserved in winter. They should not be heaped together in large quantities, as they are apt to heat and deteriorate in vegetative power.

There are other practices in use for the prevention of disease in potatoe culture, but I believe if credit is given, and proper attention paid to the remarks here made, there will be few failures in potatoe crops. It is probable those remarks are not new to some of your readers, who will consider my prescriptions fortuitous; or, it may be, the states are fortunately exempt from the diseases I have described. But I hope some of your many intelligent correspondents will think the subject worthy of notice, and will favor us with essays on potatoe culture, stating whether their crops are subject to disease, of what nature, and what cures or preventives they use?

And now, Messrs. Editors, I bid you farewell for the present, and again subscribe myself, TWELDSIDE.

## ROYAL AGRICULTURAL SOCIETY.

A correspondent of the *Mark Lane Express* furnishes that paper with an estimate of the receipts, at the late Bristol meeting, which, in round numbers, are stated to be as follows:

Wednesday.—Show of implements—800 at 5s. each	£200
Thursday, up to one o'clock.—Cattle show—16,000 at 2s. 6d.	2,000
After one o'clock to 6 P. M., 12,000 at 1s. each	600
Friday.—5,000 at 1s. each	500
Council dinner tickets, exclusive of invitations	450
Pavilion ditto	1,200
Ladies' Gallery ditto	150
	£4,850

besides about £1,200 arrears of subscriptions which were received on the occasion. Notwithstanding the magnitude of these receipts, the society does not, neither does it desire to, pocket much by the exhibition. Its contracts for the dinners have been most liberal. The expenses of the pavilion and show yard, too, are very great, amounting to nearly £2,000. They distributed also upwards of £1,300 in prizes, and have besides to pay the expenses of the printing, &c., which amount to a considerable sum; so that the exhibition does little more than clear itself, leaving the ordinary income of the association free to meet its ordinary expenditure.

The following was the bill of fare provided for the grand dinner at the Pavilion, on Thursday:

500 roast fowls; 200 joints of lamb; 50 lamb pies; 50 pigeon pies; 100 hams; 100 tongues; 125 joints of boiled beef; 125 joints roast beef; 110 fruit pies; 110 open tarts; 500 dishes of vegetables; 100 salads; 200 dishes of butter; 200 dishes cheese; 600 bottles of sherry; 600 bottles of port; and 100 gallons of beer.

## EXPERIMENTS WITH MANURES.

THE following details of experiments made on the lands of Knock, near Largs, in the spring and summer of 1841, by Mr. Wilson, were furnished to the Philosophical Society of Glasgow. A piece of three year old pasture, of uniform quality, of about 200 fells, old Scotch measure, was divided into ten equal lots, which, treated as follows, produced the undermentioned quantities of well made hay:

Lot.	Produce per lot, lbs.	Rate per acre, lbs.	Increase per acre, lbs.
1. Left untouched, .....	490	3360	....
2. 2½ bbls. of Irish quick lime added, .....	602	4516	1456
3. 20 cwt. lime from gas works, 651 .....	651	4908	1648
4. 4 cwt. wood charcoal powder 665 .....	665	5030	1960
5. 2 bushels of bone dust, .....	693	5244	2184
6. 18 lbs. of nitrate of potash, .....	742	5636	2676
7. 20 lbs. of nitrate of soda, .....	784	6072	2912
8. 2½ bbls. of soot, .....	819	6362	3192
9. 25 lbs. of sul. of ammonia, .....	874	6776	3416
10. 100 gallons of ammoniacal liquor, from gas works, at 5 degrees of Twissell's hydrometer, .....	945	7360	4360

The value of the applications was 5s. for each lot, or at the rate of £2 per acre. All the articles were applied on the 15th of April, 1841, and the grass cut and made into hay in the following month of July.

## THE ACACIA.

By the kindness of our London friends we have been put in possession of an early copy of Mr. WITHERS'S volume on the Acacia or Locust, being a history of its growth, culture, qualities and uses, with liberal selections from the writers of other countries, both French and American, on the subject of this tree. As a whole it forms a very valuable compilation, and cannot be otherwise than useful to those who wish to engage in the culture of this valuable tree. In an examination of the work, however, we have not noticed any account of the borer, the insect that is making such ravages among the locusts of this country; hence we infer that it is unknown in Europe. It may not be out of place to remark here, that in a conversation with the celebrated chemist, Feuchtwanger, of New-York, a short time since, he gave it as his opinion, that washing the trees with his preparation of whale oil soap would effectually prevent the attacks of the borer, not only on the locust, but also such

fruit trees as are exposed to destruction from this source. We hope this suggestion will be acted upon by our farmers; as it is certain the washing of the trees with this preparation could not injure them, and in all probability would, when applied about their roots, be an effectual stimulus to their growth.

But the most valuable part of Mr. Wither's volume, is an original essay on the planting and culture of trees in general, from the pen of Mr. Simmonds, the well known writer on agriculture, the associate of Mr. Johnston in the preparation of the Farmer's Encyclopedia lately published, and the writer of the notice of the meeting of the Royal English Ag. Soc. which appeared in the Sept. No. of the Cultivator. The essay embraces the following topics:—1, the situation of a nursery; 2, the soils best adapted for that purpose; 3, on topping, pruning, and general management of nurseries; 4, culture and management of hardy trees and shrubs; 5, on the diseases and casualties of trees; 6, on the produce and profits of such plantations; and 7, the law in regard to timber. The directions for the planting of seeds of the various trees and shrubs, are very plain, and as this matter appears to be little understood in this country, we shall at an early day return to this subject. In the meantime, we can recommend to our readers the perusal of the present volume; or which is perhaps still better, Mr. Downing's excellent work on Landscape Gardening.

#### FARMER'S MAGAZINE FOR AUGUST, 1842.

This number of the Magazine contains a fine portrait of the justly celebrated Robert Bakewell, a man who was the pride of the agriculturists of the last century, and who perhaps, more than any other man, by showing what could be done in the improvement of animals, has led the way to the production of the beautiful and valuable stock of various kinds, now the glory of the English farmer, and of which so many fine specimens have been introduced into this country. Mr. Bakewell was born at Dishley, in Leicestershire, in 1726, and died at the same place in 1795. The New Leicester sheep remains the proudest monument of Mr. Bakewell's skill in breeding; and it is much to be regretted, that his peculiar policy in that department, should have led him to keep the steps by which he was so successful, a profound secret, and thus lose to the world the great advantages which his successors in cattle and sheep breeding, must have otherwise derived. The memoir which accompanies the portrait is well written and instructive.

The following extract from the monthly article on the Corn Trade, we make for the sake of calling attention to the part we have italicised, as this is the first intimation we have had of the existence of such a practice, a practice which must be limited, as it can only be followed where white corn of a peculiar quality is grown.

"Large quantities of wheat, the produce of the United States, will be sent across the border, will be converted into Canadian flour, and entered for consumption in the United Kingdom, on payment of colonial duty. Our shipping interest, however, will have the advantage of the carrying trade of this American Canadian flour, for it cannot be imported here, unless under the British flag. Our home wheat growers may also confidently calculate on their property being met in our markets during the ensuing corn season, by unusually large supplies of wheat and flour, direct from various quarters of the United States themselves, independently of the quantity that will be smuggled into this country in the character of Canadian produce. Shipments to a considerable extent continued to be made to Europe, but the American millers must cease to mix Indian corn with wheat, before confidence can be placed in the good baking qualities of American flour."

This number contains a most valuable report of Mr. Smith's lecture on Drainage, before the Royal Ag. Soc. showing the method and its advantages, most conclusively.

#### SUBSOIL PLOWING AND DRAINING.

In another part of the Cultivator we have alluded to Mr. Smith's excellent lecture on draining and subsoil plowing. The following extracts we think are worthy the notice of those who have hitherto been doubtful on this subject; and some facts which have lately come to our knowledge respecting the use of the subsoil plow in this country, have convinced us that its general introduction would be of most essential service to our farmers. In the course of his lecture Mr. Smith said:

"A notion has prevailed with some people that it is possible to drain land too much. I do not think so, from the very fact that the mold becomes an excellent magazine for the retention of moisture. A circumstance took place in regard to this in my district, in 1826, a very dry season. In that year there was such a long period of dry weather, that the pond was dried up, and there was a great deficiency of crops. I had a field which had been treated in the way I have described, [drained and subsoil plowed,] and I had a crop of hay upon it. The hay in the country round was very poor indeed, producing not above half a crop. On this field which I had deepened to 16 inches, I had a very splendid crop. A proprietor of land in the neighborhood, one of the old school, resisted to the utmost of his conviction with regard to the result of thorough draining and subsoil plowing. A person occasionally employed by me, was also engaged in doing work for him. He had asked about this hay, and the old gentleman was rather puzzled at the state of the crop, and exclaimed that he really thought I had drained my land so much that I should have no crop at all. He was immediately after this completely wedded to the system, and from that day has been vigorously engaged in introducing thorough draining and subsoil plowing all over his estate; and he is now having a great deal of poor soil, on a very rich and productive estate, treated in the same way. Taking the average of that gentleman's estate, I should say that he now produces double the quantity of corn that he used to obtain. He now grows potatoes where he could not grow them before, and on the old clay he produces regular and large crops of turneps."

In the course of the lecture the question was asked by a gentleman—"What effect thorough draining and subsoil plowing would have on the habit of throwing out the wheat plant by frost?" To this Mr. Smith answered, "There is no difficulty in answering this; because it is well known to be owing to the moisture, that the wheat plant is thrown out; and whatever removes the moisture will have the favorable tendency required. I have known many places where almost every winter the greater part of the plants were thrown out. Now the result of thorough draining and subsoil plowing is, that these places retain the plant perfectly well, and have very abundant crops."

MR. COKE OF HOLKHAM, EARL OF LEICESTER.

We find in our late foreign journals, biographical notices of this distinguished agriculturist, one of the most able men of the age, and than whom, few have deserved so well of their country and mankind. His strict honor and probity, his exemplary moral conduct and his political integrity, made him respected by the first men in Great Britain; and the revolution which his example and influence effected in the agriculture of no inconsiderable portion of that country, gave him a right to the title of the Great Farmer, as well deserved as was the celebrated Pitt's, of the Great Commoner.

The Earl of Leicester, was 91 at the time of his death, and for 70 years, he has as a farmer, occupied a most conspicuous station. Born to the possession of a princely estate, when he came to take charge of it, he found a large portion of it leased to a Mr. Butt, and the lease within two years of its expiration. The former lease had been 1s. 6d. per acre; the current lease was 3s. per acre; and Mr. Coke offered to renew it at 5s. per acre, which Mr. Butt declined, and the proprietor at once assumed the management of his immense estate. Ignorant of the practical details of agriculture as Mr. Coke found himself, he was not ashamed to learn, and he soon collected some practical men around him, and almost from the first, instituted annual meetings of the neighboring farmers, where agricultural topics were freely discussed, and which gaining greater celebrity as they became more widely known, and more extensively useful, were the foundation of the Holkham sheep shearing meetings, so long justly celebrated for their practical utility.

"West Norfolk, at that time, was a rye growing district; his lordship made it a wheat growing one. The system of cropping was detestable. Three white crops were grown in succession, and when the land would produce no more, broadcast turneps followed. No manure was purchased, and very little produced on the farm. Mr. Coke began with two white crops in succession, and kept the land in pasture two years in every course. But still he could not grow wheat. The land was naturally weak, and could be made to produce little food for cattle, so as to increase the live stock. The first thing to be done was the purchase of manure, and he was induced to try rape cake as a top dressing. But the most effective source of improvement, was a stratum of rich marl, at various depths, underneath the surface soil of the district, which is a very light sand. Pits were opened, the marl dug out, and laid upon the surface. This gave to the soil the solidity essential for wheat, which was first raised in 1787. Clover and other artificial grasses followed, and the power of keeping more live stock thus obtained."

After a variety of experiments to ascertain the animals best adapted to his system of farming and his soils, he fixed on the Devons for cattle, the South Downs for sheep, and a cross of the Neapolitan and Suffolk for pigs.

Mr. Coke was the first to introduce covenants, prescribing the particular course of cultivation to be followed, into leases, and in the opinion of Earl Spencer, who has given a most interesting memoir of the Earl of Leicester in the Journal of the Royal Agricultural Society for 1842, it was the combination of judicious covenants and long leases, which enabled him to effect such great improvements, not only on his own estate, but by his example and influence in the whole district. Such men as the Earl of Leicester are benefactors of mankind; and when the Marlboroughs and Wellingtons of his own country are weighed against him, they will be found wanting.

#### "THE HERD BOOK."

We learn by a letter from J. WHITAKER, Esq. England, to E. P. PRENTICE, Esq. of this city, that so many entries have been made for the forthcoming addition to the Herd Book, that it has become necessary to make two vols. of it, instead of one, as originally proposed. This has also caused the delay which has taken place in its publication. Mr. Coates now wishes to include all the animals entitled to a place in it, up to the time of its going to press. Gentlemen in this country who have not forwarded their lists of animals, may yet have them inserted, by immediately communicating the necessary registers to Mr. Coates. The vols. now to be issued, will be devoted, one to males, (about 2800,) and the other to females, of which about 3000 have been entered. Price, one guinea per vol.

#### AN AGRICULTURAL SCHOOL.

MR. PEDDER, has announced in the August number of the Farmer's Cabinet, of which he is the associate editor, that he has connected himself with JOSEPH COWPERTHWAIT, Esq. for the purpose of opening a Farm Institute on the farm of the latter, which lies on the banks of the Delaware, 12 miles above Philadelphia. On this farm, which is adapted in every respect to the purpose, Mr. Pedder proposes to receive and instruct a limited number of young men in the principles and practice of Agriculture and Horticulture. The course will embrace the cultivation of crops—the rearing of the choicest live stock—the system of draining—and the formation and application of composts, &c. Much attention will be given to the plow and its management, the subsoil one particularly, the best implements and best stock having already been selected. The students will have the advantage of studying horticulture in its various branches; there being a green house, flower garden, &c. &c. under a professed gardener, with an enclosed garden of more than two acres.

That our friend Mr. Pedder will perform all that he promises no one can doubt: and we are gratified that he has so far advanced in opening the first Agricultural School in the United States. We have often urged upon some of our wealthy and public spirited farmers, the propriety of farm schools of this kind. Under competent managers and practical instructors, they could scarcely fail of success; and when once the "ice is broken," when it is seen by the success of but one school, that individual enterprise is sufficient for their establishment, we may hope to see them rising in every state of the Union. Mr. Pedder has not given the terms of instruction in his Institute; we presume they can be learned by application; and confident that the author of "Frank," will make an excellent agricultural teacher, we close by wishing him and his Institute every success.

#### EDEN-HILL FARM INSTITUTE,

On the river Delaware, twelve miles above Philadelphia, eight miles from Bristol.

The Editor of the Farmer's Cabinet, takes the opportunity of stating to its numerous readers and his personal friends, that being relieved in a considerable degree from the details of the office, by an arrangement with its present proprietor, he is enabled to realize his long cherished desire, to practice the art of agriculture in this, "the land of his adoption." To this end, he has connected himself with Joseph Cowperthwait, Esq., upon whose farm, in every respect adapted to the purpose, he proposes to establish an Institute, for the reception and instruction of young men in the principles and practice of Agriculture and Horticulture. He will occupy the elegant mansion, now in the tenure of P. L. Laguerrenne, Esq., which, for healthfulness and beauty of situation, cannot be surpassed; and it will be the study of himself and family to tender to their young friends the conveniences and comforts of a home.

The exercises of the institution will embrace the practice of Agriculture in all its various branches and details—the cultivation of the best crops, and the rearing of the choicest live stock—the best animals having been selected, and the most approved implements obtained. The management of the plow will form a leading feature in the course of instruction—sub-soiling will be adopted on a regular scale, as well as a system of draining, the formation and application of composts, &c. Horticulture will occupy a large share of attention, the students having the advantage of studying and practising this branch—the care of the flower garden, green house, and culture of the vine, under a professed gardener, having the charge of a range of houses, with an enclosed garden, of more than two acres in extent.

The estate is bounded on the west by the Bristol turnpike; on which, and within its borders, is situated the Episcopal church of "All Saints," with several other places of worship in the vicinity. The Trenton and New-York railroad passes through the centre of the farm; while the river Delaware, its easternmost boundary, affords repeated daily access by steamboats—a boat in regular attendance at Kison's ferry, landing passengers within a few yards of the line.

A limited number of students only can be accommodated; and as it is the wish of the subscriber to commence operations early in the autumn—the commencement of the agricultural year—he would be happy to receive early applications from those parents and guardians who may honor him with their confidence.

JAMES PEDDER, Office Farmer's Cabinet,

#### ARTIFICIAL WATERING PLACES.

SEVERAL inquiries have been made as to the artificial watering places described in a former volume of the Cultivator, by a subscriber, as constructed by Mr. Robertson, of Fishkill Landing. The method consisted in merely digging a hole in the earth, placing a barrel in the hole, which was to be filled with small stones, and then whether any indications of water had previously existed or not, water would soon accumulate and fill the reservoir. Considering the plan as unphilosophical at the time, we could not vouch for the success of the system; and we have since learned nothing respecting it, that has induced us to change our first impressions. In the only trial made of the plan that has fallen under our notice, it was a complete failure, although made under as favorable circumstances as can generally be expected. For ourselves, we should have no faith in the plan, and if any have succeeded, we have not heard of such instances.



## Original Papers from Contributors.

## AGRICULTURAL EDUCATION—ANALYSIS OF PLANTS, &amp;c.

Messrs. GAYLORD & TUCKER—I wrote an article some ten years ago, for the New-York Farmer and Gardener, strongly urging on our state government, the advantages of establishing a college for the instruction of the sons of our farmers. I stated that farming on scientific principles would benefit the country infinitely more than the cost of instruction; that our farmers would then take that stand in society which their intrinsic worth demanded, and instead of sending their most talented sons to cities, to the total ruin of nineteen-twentieths of them, they would consider their own calling as far superior to all others. I believe an application was made to our legislature soon after my essay made its appearance, which I think was unsuccessful. It is not much to our credit that numerous agricultural colleges are being rapidly established in Europe, while so little has been done in our own country. It appears that such colleges have been introduced in Germany and France, and are being established in other European countries. The following extract from the Bath and Cheltenham Gazette, will show what is doing in England:

"The success of the Kent agricultural college, has led to the formation of a similar institute at Shepscombe, near Painswick, in this county, (Gloucestershire.) The design is, for a moderate annual payment, to bring up youth from 14 years of age to 18, giving them, besides a good education, instruction in the theory and practice of agriculture, on the best and most scientific principles. On the continent, agriculture is taught as a science. In this country, it has been allowed to depend on isolated instruction, while all other arts and sciences have had the advantage of collegiate courses of education. The farms attached to the agricultural college at Shepscombe, include various descriptions of arable, pasture, and woodlands, in the immediate vicinity, and extend over 900 acres."

I am well acquainted with the locality; and the land, exclusive of the buildings, is worth two hundred and fifty thousand dollars. We must recollect that this has been done by a single county in England; and yet the great state of New-York, extending over a fine agricultural country of fifty times its area, has done little or nothing to aid her farming interest, on which her whole prosperity mainly depends.

A farmer should be well instructed in chemistry generally, more particularly as applied to agriculture; he should be well versed in mineralogy, geology, botany, and in the physiology of seeds, plants, trees, and animals, including the species *bimana*; he should learn geometry, mensuration, &c.; he should study political economy so far as to have a clear conception of the sources of wealth and prosperity. In our republican government, he should be instructed in his constitutional rights, and taught to vindicate them by a terse and condensed elocution. It will be a happy event for our country, when farmers so educated, shall have the ascendancy in our halls of legislation, and thereby put atop to the fallacious special pleadings of demagogues, who have already reduced our country, possessing all the means of prosperity in a pre-eminent degree, to a most pitiable condition, by their miserable legislation.

I had like to have forgotten the main object I had in view, when I commenced this article. As we cannot have colleges established, I would recommend that a fund be raised for the purpose of having all grain, corn, seeds, potatoes, roots of every kind, fruits, straw, and every variety of grass, analyzed. When this has been done by a competent chemist, let us have tables of contents published. We must be careful that none but a competent analyzer be employed, for there is quite as much empiricism in chemistry as there is in physics. Let wheat and wheat straw, barley and its straw, rye and its straw, oats and its straw, and so on through the whole series, be separately analyzed. If a fund can be raised in this country sufficient for the object, let applications be made to Germany, France and England, to go through the same operations, and give us their results. Both the elementary and earthy portions of each must be given. With tables made from the analysis of four different nations, any chemist could instantly and accurately determine what ingredients were necessary to make a soil of the most fertilizing properties for each and every description of agricultural product. It is but a short time since chemistry has been applied practically to agriculture, yet every day develops something new. I think it will ere long, be found, that instead of a succession of crops, the raising of one product on the same land, in perpetuo, will be found far more beneficial. To do this, it will be only necessary to apply to the soil, those materials which every plant requires for its constituent principles, and these may be developed by a correct analyzer. If agricultural colleges should ever be established in our country, such tables would be of infinite advantage to them, and would in fact, be their text book for all practical operations. To assist in obtaining so valuable a result, I will be one of a hundred, to contribute some twenty or thirty dollars each. A fund of from two to three thousand dollars would thus be raised; a sum I should consider fully equal to pay the most skillful operator for his services.

DANIELS' PATENT MANURE—Since I sent you the article on the use of silicate of potash, Mr. Daniels, the inventor of the new compost for wheat, or some one for him, has given a statement of the ingredients used, but not the proportions of each. They are wood saw dust,

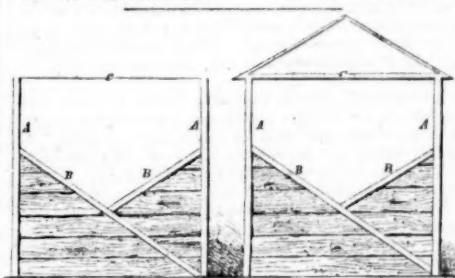
fine charcoal, lime, and bitumen. I understand that patents have been secured in England, France, Germany, and in this country, and that extensive applications are being made by the leading agriculturists of England. Should these experiments prove equal to what has been predicted, it would be wise in our government to purchase and give it for the free use of our farmers. I would recommend the silicate of potash to be added to the above compost. I have been acquainted with the standing of Mr. Daniels, for nearly twenty years. He was engaged many years in the woolen manufactory of Messrs. Wilkins & Co. of Tiverton, near Bath, and has invented very many improvements in the fabrication of woolen cloth. The permanent gloss given to woollens by steaming, so generally adopted by our manufacturers, was one of his inventions. The concern failed some two years since, principally occasioned by losses sustained in this country. It appears that his master mind has been employed for the last four or five years, in agricultural improvements. New-York, Aug. 8, 1842. WM. PARTRIDGE.

## COST OF WINTERING SHEEP.

Messrs. GAYLORD & TUCKER—Allow me to occupy a short space in your columns, by the following statement of the manner in which a small flock of Cotswold and South Down sheep were fed upon my farm through the last winter. My chief object in giving it, is to correct an error in a letter of Mr. Grove, published in the Transactions of the N. Y. S. A. Society, for 1841, in which he draws the comparison of the profits of the Saxony, (a flock of which he possesses,) and the longer woolled and large mutton sheep; among which latter, the Cotswold and South Down stand the most prominent. Mr. Grove makes the latter exorbitant feeders, that being their chief characteristic. Therein is the error I speak of. He feeds his own flock (Saxony,) from 150 to 200 lbs. of hay, and 4 bushels of potatoes, daily, to the one hundred sheep, and opposes that to a statement found in Youatt, making the same number of Bakewells to consume 500 lbs. hay, and about 40 bush. turneps, daily. This is indeed extravagant, and well calculated to fix the choice upon the smaller and more easily satisfied Saxony. My flock consists of sixty-four, 25 of which are bucks and wethers, 27 ewes, and 12 lambs. They were yarded about the middle of Nov., and fed through the winter upon clover hay and turneps alone. Their food was accurately weighed, and I fed 110 lbs. clover, and 5 bush. turneps, daily, to the sixty-four. Thus they were fed till leaving the yards, about the 15th April, when they ran upon rye sown purposely for early feed, excepting that the ewes after lambing had a few oats given them, which most refused when upon the rye.

The difference, it would seem, is very little, if any, between Mr. Grove's feeding and my own, so that any difference in the profits of the two kinds, must be sought for elsewhere. My Cotswold fleeces averaged 7½ lbs. clean wool; the South Down 4-7 lbs. Many of my flock had lost much of their wool. The long continued warm weather, coupled with carelessness in not sufficiently often cleaning their yards, was probably the cause of their loss. I have never fattened any, so that from my own experience I can give no statement of the weights they may be brought to, or the expense of feeding. I shall, however, the next winter, fat several wethers of both kinds.

I have now 33 lambs from 27 ewes, two ewes being barren, and one sold in lamb last April; making 24 ewes, therefore, produce the 33 lambs. Albany, Aug. 19, 1842. J. M'D. M'INTYRE.



FODDERING PENS.—(Fig. 89.)

Messrs. EDITORS—Knowing that you wish to make your paper valuable to the farmer, I send you a description of a foddering pen which I use for my cattle. I have never seen any thing of the kind described. The size may be according to the fancy of the builder, but about 5 feet square I find to be the best size; the height should be proportioned to the cattle to be fed. It is not designed that the posts should be set in the ground, but it may be moved from place to place, to suit the convenience of foddering, and in the summer to a corner of the yard. Description—A, A, A, corner posts, 3 by 4 inches square, 6 feet high.—B, B, B, joists 3 by 4, placed as in the drawing, over which the cattle must come at the hay.—C, C, plates which support the roof, and confine the top of the posts. The whole should be boarded up as high as the braces B. A pen of the above description, will allow four cattle to eat at the same pen, and prevent fighting, as every creature will have one side to himself, and will wholly prevent a waste of hay by stepping on it, which I consider the most consequence. In windy weather with my pens, I can fodder as saving as at any other time. FRANKLIN CO.

## PROFITS OF FARMING.

Messrs. EDITORS—It is believed by many, that capital and labor bestowed upon agriculture, is less productive, than the same amount of capital and labor applied to most other branches of business. I think it exceedingly important to ascertain whether this be true or not; and also the per centum of clear profit that is realized by farmers on the estimated value of their farms. I propose this as an inquiry, and hope it may receive such attention and call forth such answers, as to fix and settle some general principle. The inquiry is, not what a single field or a part of a farm near a good market may yield occasionally; but what is the profit of the whole farm, including woodland, from year to year, after deducting all the expenses of labor, tools, taxes, fencing, the interest of the capital, &c.? Does any farm as a whole, do farms generally, yield, independent of all expenses, an income of 7 per cent on the capital invested, including land and buildings, stock, and farming utensils? If they fall short of this, then one of two inferences must be true, either that money vested in farms is less productive than when loaned on interest; or that the price of land is generally held much too high; for I believe it is a correct principle that a farm is in reality, worth no more money, than it will pay the interest of, after all annual expenses are deducted.

Will you, Messrs. Editors, and your correspondents, give us the result of your experience and observation on this subject?

I do not propose the above inquiries on the principle that a man should always engage in that kind of business which promises the greatest immediate profit. Far otherwise. Other considerations should have equal or greater weight in determining his choice. And I most fully believe that the business of agriculture is subject to less temptations to vice and crime; less cares, anxieties, and excitements; less fluctuations and losses; and is more calculated to produce virtuous habits, good health, peace, contentment, and ultimate prosperity, than any other business. "A man's life consisteth not in the abundance of the things which he possesseth;" and if happiness be the aim, agriculture is the most certain and pleasant path to her abode. H. A. P.

It is very difficult to give a definite answer to the inquiries of our correspondent. For a few years past, the prices of our agricultural produce have fluctuated so much, that the same amount of crops which in one year would have given a profit of 10 per cent, in another would not yield six per cent, on the capital, expenses, &c. of a farm. We firmly believe, however, that any well conditioned, and well managed farm, will, at a fair average price for the products of it, yield the owner 7 per cent on the capital invested; and we can point to many that do far more than this. It must be admitted, however, that a great majority of farmers do not receive from their farms a profit equal to 7 per cent, owing to the imperfect manner in which their business is conducted, and the condition of the soils they cultivate. Different views of this matter too, will depend on the manner in which the profit is reckoned; some considering only as clear profit, the cash or products left, after all the expenses for labor, taxes, &c. and those of the family, are deducted. This is not the correct way. A farmer whose capital in land, stock, labor, &c. is ten thousand dollars, may expend in taxes, for objects not connected with the farm, and for the support of his family, the entire product of his farm; so that not a dollar shall be left; and yet, if these expenditures equal in the aggregate 700 dollars, it is clear he has received 7 per cent on the capital invested. So at least it appears to us; but we are willing to give place to such of our correspondents as may choose to be heard in the matters referred to by our correspondent.

## CULTURE OF POTATOES, &amp;c.

Messrs. GAYLORD & TUCKER—I wish to state my experience in raising a potatoe crop the past season, upon a piece of land which had been worn out by a process of skin flint farming, for more than twenty years. It was plowed the first season on the 10th of May; again on the 1st of July; then buckwheat was sown, and it was seeded heavy with clover. As soon as the buckwheat and clover began to appear, the piece was sown with about two bushels of plaster to the acre. The clover grew finely, wintered well, and was pastured until the 20th of June following, when it was again plowed and sowed with buckwheat, which proved an entire failure. I now feel qualified to advise all those who wish to raise a good crop of buckwheat, not to sow upon freshly plowed green sward. In order to have the soil in the best condition possible, it should be plowed early in the spring, and again immediately before sowing. But to my subject. The next spring I carted on twenty loads of manure to the acre, which had been well housed, and which I concluded was worth 25 loads of commonly well drenched manure. This was spread upon the surface and immediately plowed in, which I believe to be the best way, every thing considered, of applying it to our kind of soil; it being a heavy loam, and in some places bordering upon clay. The ground was then furrowed, three feet apart each way, and planted with several kinds of potatoes considered the best, in all imaginable ways, large and small, cut and uncut. As soon as they were up sufficiently, they were plowed both ways; in about two weeks were plowed again, and slightly hilled. When gathered in the fall, there was no material difference in the lot, and the yield was at the rate of 309 bush. to the acre. Tivoli, June 7, 1842. H. GOOR.

## APPLICATION OF MANURES, &amp;c.

MESSRS. EDITORS—Among all the correspondents of the *Cultivator*, whose communications render its pages so pleasing and instructive, none rank higher for usefulness to the practical farmer in my estimation than Commentator. It does one good to see the various communications pass in review before him, and stripped of their useless lumber, weighed at their true value in his judicious balance. I am emboldened to send you this by observing that Commentator has ever confined his criticisms to the matter and not to the manner of the several articles; and no one who has exhibited any degree of common sense, has been lashed for lack of scholarship. This is as it should be; for but few of us practical farmers have ever been bred to Latin, and are highly gratified if we can make ourselves understood in homely English. Having been a constant reader of the *Cultivator* from its commencement, there are many articles in the back numbers that stand out in bold relief on the memory, and, like the prominent objects of a landscape, arrest the attention whereon the various subjects recur to my mind, that have been discussed pro and con by the numerous correspondents of this most valuable paper. Such an article is one signed by James M. Garnet, of Virginia, on the application of manures, published in the August number for 1839. Now anything from the pen of that distinguished gentleman and friend of agriculture, prompted as he evidently is by an ardent desire for the improvement of his brother farmers, and supported by his long experience, has almost the force of law with me; yet the article above alluded to does so clash with all my former opinions and observations on the application of manures, that I am confounded and perplexed, and have often regretted that Commentator did not commence his office sooner.

One at least will be gratified, and perhaps others may, if he will even now review the experiments of Mr. Garnet in this instance, and see if the conclusion which he has drawn from them is correct—"that it is always best to apply manure on the surface of land." We at the North hardly think those experiments conclusive proof of the above position; but it may be so in the latitude of Mr. Garnet, and perhaps of Commentator. Mr. G. says—"I began by penning my cattle late in the spring, and continued it until frost; in pens of the same size, moved at regular intervals of time, and containing the same number of cattle during the whole period. These pens were alternately plowed and left unplowed until the following spring, when all were planted in corn, immediately followed by wheat. The superiority of both crops on all the pens which had remained unplowed for so many months after the cattle had manured them, was just as distinctly marked as if the dividing fences had continued standing." That it is best to leave yards in which cattle are penned, and on which they let fall small quantities of manure on each succeeding night, which is left exposed to all the atmospheric influences, under the almost vertical sun of Virginia, (for we know not how many days) until all is evaporated which constituted the chief reason for burying it in the soil, unplowed until the following spring, is undoubtedly proved by this experiment; and also one other point is clearly proved, that is the vast superiority of spring plowing over summer fallowing; for the plowed pens were virtually put under a summer fallow, and the soil too, perhaps, a loose sand. But how does it prove that it is always best to spread all green or unfermented manures on the surface of land? This is the point on which we should be glad to have the opinion of Commentator.

One other experiment in the aforesaid communication, in which Mr. Garnet attempts to prove that if anything should evaporate from surface spread manure, it will all be absorbed by the tops of plants, and I have done. He says—"all the bark was taken off from around the body of certain young trees in a ring about three inches wide;" and he manifests surprise that the part above the decortication increased in size faster than below. Think you, Mr. Commentator, the next time Mr. Garnet holds out his arm to his surgeon to be bled, and sees the vein swelling between the ligature and his extremities, he will come at once to the conclusion that he takes in food at his finger's tip? I have observed these phenomena frequently, but have always thought them proof only of obstructed circulation in both cases. "It does not appear as plain as the nose on a man's face," that Mr. Garnet is right in either of the above conclusions; but I am young, and I reckon that I may change my opinion yet on many things if I shall live to be old, and shall wait with some anxiety for Commentator's opinion. If anything in this communication should appear disrespectful to Mr. Garnet, I hope he will not think it designed; for he may be assured there is no agricultural writer of the day whose opinions, in general, are more highly valued. Yours, &c.

Kingsbury, Wash. co., N. Y. L. B. ARMSTRONG.

## TOAD FLAX.

MESSRS. GAYLORD & TUCKER—Agreeable to your request, I will give you my views and experience in regard to the best method of destroying the toad flax, more commonly known among us Dutchess county farmers, by the name of snap dragon. Two spots of some size were discovered on my farm a few years back. My attention was immediately turned to their destruction. I made frequent inquiries of my neighbors and others as to the best mode of destroying them without success. In the mean time, I was determined that they should not bear

any seed to spread from that source. I commenced in the early part of the summer, not far from the first of June, to tear or rather pull them off by hand. This done, I waited until the second growth came, and then repeated the pulling; and I think in the latter part of the summer, the third was repeated. I found at each successive pulling they grew less in number, and were more feeble in their appearance. The following summer but very few made their appearance. I pursued the same course of pulling some two or three times, which made a complete finish of them. I have not seen anything of the kind on my farm since that time, which is about six years. This method is much easier than to destroy them by tilling, where spots occupied by them are not too extensive. The proper time to destroy these noxious weeds is when they first make their appearance; and not wait until acres together are covered with them, which is the case in many places in this county. In this case, I would recommend my brother farmers to try the plan which you have recommended—by frequent tilling; which plan I think would succeed if thoroughly done. P. R. S.

La Grange, Dutchess county, June 17, 1842.

## BOOK KEEPING FOR FARMERS.

MESSRS. EDITORS—Agricultural book keeping naturally divides itself under several distinct heads,—as you may wish to ascertain the net profits of the farm; the profits of a single field or crop; the relative value of different crops of grain or grass; or the net profit or loss of your whole business, including family expenses and all others, and every item of income, whether from the farm or any other source.

The profit and loss of your whole business, is readily ascertained, by entering daily, in a journal or day book, each item of receipts and expenses. The source of the income and the object of the expense must be stated, that in footing up, it may be carried into the right column. At the end of the year these are carried into two chief columns, and the difference is your profit or loss. A long running account with your hired men, might be kept on separate sheets of Dr. and Cr., and the sum be transferred at the regular times of settlement.

The income and expenses of the farm, comes under another head, with which your miscellaneous receipts and family expenses have nothing to do. To have this correct, you will in going over your journal at the close of the year, (the last of March,) carry each item of your farm account into a column by itself.

These are the chief items:

Receipts.	Expenses.
Rent, if any, to tenant.	Labor.
Grain sold or used in family.	Stock purchased.
Pork do. do. do.	Seed purchased.
Eel do. do. do.	Plaster.
Wool, sheep, &c.	Decreased value of stock.*
Butter and milk sold or used.	Wear and Tear.
Hay, pasture, &c. sold.	Board of workmen.
Increased value of stock.*	Taxes on the land.

The balance of these two columns is your profit or loss on the farm, and aids in estimating the value of land, labor, &c. The net proceeds, above a moderate interest, shows the value of your labor and skill.

A third head refers to the relative value of different crops, &c. and, although it cannot be carried out with such accuracy, yet it helps guess. To this end, let there be entered in a journal, the number of acres of each particular crop, with its products and value; seed sown, and labor expended, as far as can be estimated; the number of acres in meadow and in pasture; the amount of stock kept, and various other items which might be mentioned. These all should be exact, where it is possible, and where it is impossible, there should be an honest estimate, as no one wishes to deceive himself. There should be no guess work, for it is not every man can guess nearer than he can measure.

From this last journal, kept for a series of years, you learn the annual average produce of your different crops, and their value; the relative importance of grain and grass, of cattle and sheep; the value of different soils, and the value of any particular plan of farming.

N. B. These accounts for a single year are of very little value; it is the average annual result that informs the judgment. It is not only very gratifying to know these results, but it is of the highest importance, especially to the young farmer, and he will constantly refer to the back pages of his book, as a guide to his future operations; and let me add that the time and labor of keeping these accounts is very small. I speak from ten years experience. NEWTON REED.

Amenia, Dutchess co. June, 1842.

## LAMP FOR BURNING LARD.

MESSRS. EDITORS—Mr. Ellis S. Archer, of No. 32 North Second st., Philadelphia, has invented a lamp for burning "hog's lard." The lard is warmed sufficiently to run, and then put into the lamp, which is all the preparation required. The lamp when lighted, burns with a most beautiful brilliant and clear light, and throws off none of that offensive smoke that is frequently produced by lamps burning sperm oil. This invention, will, I have no doubt, enhance the price of lard, and thereby make the growing of swine much more profitable to the farmer. Mr. Archer, I presume will attend the Cattle Show and Fair to be held at Albany, the last of Sept., so

\* These items in regard to stock, will not of course be found in both columns, but as the annual inventory of stock shall indicate.

that the farmers of your state will have an opportunity to examine his lamp for themselves.

THOS. HANCOCK.

## WINTERING SHEEP.

MESSRS. EDITORS—Upon page 97, of *Cult.* vol. VIII, is given an experiment and statistical account of wintering sheep, by C. M. of Ludlowville. I admit C. M.'s experiment may be a good one; but shall we be satisfied with good, if better be as easily obtained, and even with greater certainty? I trow not. C. M.'s economy, is *Oat Straw and Oats*; mine is, *Pea Straw only*. Pea straw, say you? What, pea straw, and nothing else? Though this interrogative seems perfectly natural, from the appearance of the pea vine, and though many, very many, have been astounded by its nutritive qualities when being informed of them, yet have I not been less surprised in seeing all these qualities wasted, which might otherwise be the support of animal life. Yes, gentlemen, pea straw alone, of itself, is first best to winter sheep upon. It sustains life, and answers that end more effectually, than the best of hay can do. This position is based upon fact; it is not conjecture. By those who have tested them, and to whom credence may be given, peas are said to be superior to corn, or any other grain for fattening swine. I think them excellent, when pulverised, as feed for cattle designed to be slaughtered. Though the horse does not at once eat the pea when ground, (it being too hard in its natural state for mastication, without being soaked or softened in water,) yet when a taste or fondness is acquired by him, it seems as magical, as that of persons forming a liking for *tomatoes, alcohol, or tobacco*. Peas are easy and profitable to raise. They will yield from 20 to 30 bush. per acre, varying in price from 4s. 6d. to 6s., averaging 65¢ cents; besides, peas, so far as I have been able to observe, impart, or aid (instead of detracting, impoverishing, and making sterile, the lands off from which they are taken,) properties which give vivacity and fertility to the soil, favorable to wheat. Generally wheat looks best this spring, where sown earliest in the fall, (lands being equally fruitful, and rotation of crops alike pursued, and tillage the same,) but though my *fallow* ground promises a *full* harvest, my *pea* ground, only separated from it by a road, bears the appearance of the more productiveness. Lest I weary you by my digressions, or over particularity, I will add only a single remark. To fill the mouths of from 3 to 500 sheep, I have found to be by sad experience, a great tax by feeding them upon hay: yes, gentlemen, take warning. To feed such voracious jaws with hay, is too expensive. Well, I'll try them a day or two on pea straw. What was my expectation? Why, that my sheep would all look thin and meagre, and gaunted up, but the reverse was my astonishment. The past winter I have fed my sheep on pea straw entire, and never was my flock more *hardy, hearty, or in better condition*, than they now are. I've lost none, nor has there been a sick one in my whole flock. If farmers will keep their sheep in unbroken numbers, and in a healthy and growing condition, a cheaper, or more safe guarantee to such a result than the culture of peas, is not to be found. A ton of pea straw, well secured, will feed as many sheep as a ton of hay. Old Castle, Ont. co. N. Y., Ap. 16, 1842. H. C. G.

## ODDS AND ENDS.

SCRAP BOOK.—If young men, I have a good mind to say young women too, who lack wherewithal to amuse themselves during the long evenings of winter, would procure a few quires of paper, (that called "post office paper," is suitable,) and stitch them neatly together, and commence saving scraps from the newspapers, and pasting them in, they would in the course of a few years gather a large bundle of Odds and Ends, more interesting perhaps than mine, although my first lot have proved interesting enough to cause them to be copied into many other papers. What a gratification to think I have been able to interest and amuse my fellow creatures, and lighten the toil of the laborer—to enable them to improve the mind, as well as the soil.

STORING SMALL GRAIN.—You in the east, who have large barns and graneries, and convenient saw mills and lumber yards, cannot conceive the difficulty that you might encounter when settled on a new farm in the west, forty miles from a saw mill. How would you store a few hundred, or a few thousand bushels of thrashed grain? Easy enough, if you only knew how—so could Careless have sealed his letter, if he had only known *how*. I will tell you how, and when you emigrate to the west, don't forget. Take fence rails and lay down a floor, a little from the ground, and build up the sides by notching straight rails so they will be steady, and then take fine straw or hay, and tramp a layer smooth upon the floor, and caulk the cracks between the rails, and pour in the grain, and stack some straw over the top to keep out the rain, and your grain will keep better than in a close granery, and not waste a bushel in a hundred.

BUCKWHEAT may be thrashed upon just such a rail pen, covered over with rails, much better than upon the ground; the grain falling through the rails into the pen below.

A LOVE OF READING, is one of the passions, which like all other passions not so good, grows by what it feeds on; and that parent who can, and does not furnish the means of whetting an appetite so salutary, when well directed, is guilty of the grossest injustice to his children. Newspapers are the mustard of food suitable for such appetites. Reader, do you take one?

COLON ROBINSON.

Lake C. H. Ia., 1842.

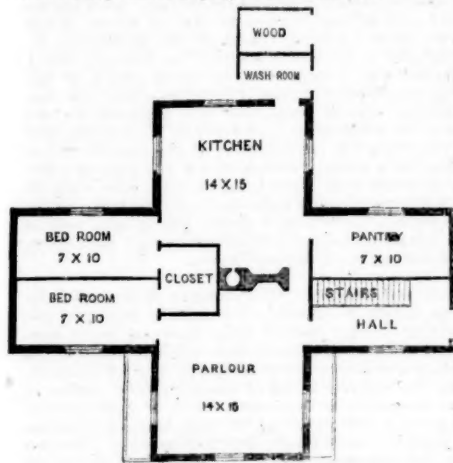




THE WORKING MAN'S COTTAGE.—(Fig. 90.)

MESSRS. GAYLORD & TUCKER.—By the editorial remarks appended to those of your correspondent D. Tomlinson, on the 66th page of the current volume of the Cultivator, "On the deficiencies in the design and adaptation of country dwellings," I have been induced to send you a design that I have been sketching: which I propose denominating the Working Man's Establishment. The designs of the building are entirely original. Whether they exhibit the deficiencies above complained of, in the design and adaptation of the buildings to the ground, or the wants of the working man, yourselves and readers must be the judges.

It cannot be claimed for the Cottage that it is the cheapest that can be built; for every one knows that a perfect square presents more room with a given amount of covering, than any other possible form: yet it is thought to have a fitness for the purposes designed; combining comfort and convenience in its internal arrangements, with an expression of purpose to its exterior.



Ground Plan.—(Fig. 91.)

ted, making one room 10 by 14 feet. The entrance hall is 7 by 10 feet, in which are the stairs leading to the chambers above. Beneath these stairs, I would place those leading to the cellar, having their entrance from the kitchen. The pantry may be so divided as to form a store room. In the wash room there should be a well and cistern. In giving dimensions for the rooms, I have made no allowance for the thickness of the walls and partitions.

It may be observed that the dining room, library, and other appendages generally found attached to establishments of greater pretension, are here omitted. They are purposely so, as being entirely needless. The kitchen is the working man's substitute. It is there, that his wife, of necessity, spends most of her time. That is her nursery, that their dining room.

Should any think the above plan too small and contracted, it can easily be enlarged without any material change in the general plan. Let the building from front to rear, and from side to side, be 40 feet. This would enlarge the drawing room and kitchen to 16 by 18 feet, and side rooms to 8 by 12 feet. By an extension of the back part of the building, the wash room may be used for a kitchen, and the former for a dining room.

In laying out the grounds, (fig. 92,) I have endeavored to follow the teachings of nature; imitating her in that which is beautiful or picturesque. The gentle curves that are made in the walks *d*, or carriage way *e*, should not appear arbitrary, but necessary, by the planting of trees or shrubs. Those parts of the grounds lying north of the walks and carriage way, should be planted with the finest of our hardy forest and ornamental trees; while those lying back of this should be devoted to the finest of our summer and winter fruits. That there may be unity as well as variety in the landscape, the transition from ornamental to fruit trees should be gradual, and not sudden; the one blending with the other.

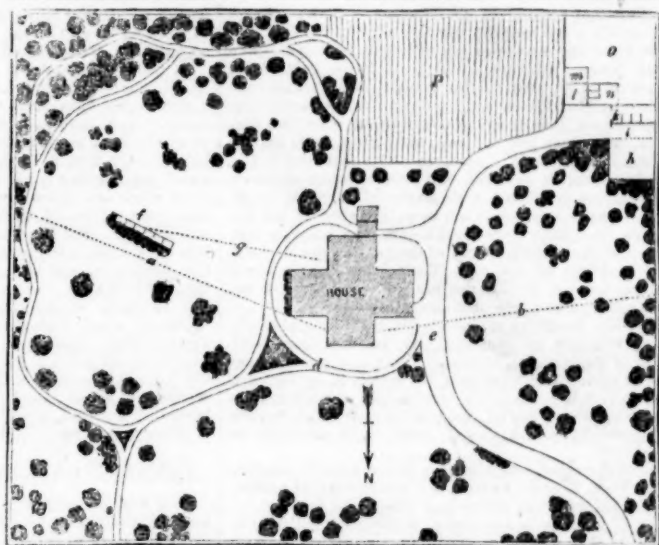
No establishment can be said to be complete, that is destitute of a bee house. I have therefore introduced it, *f*, in the above sketch. My object in giving it the above location, was, that during the swarming season, every hive might be seen from the kitchen, a matter of no small consequence. This is done in the line of *g*.

The arrangement of the barn, and other out buildings, are thought to be both convenient and economical. The bay of the barn is designated by the letter *h*, the floor by the letter *i*. Beneath this floor should be a cellar for roots, &c. The stabling, *k*, is a lean-to built on for that purpose. A building for a wagon house, corn house, &c. is marked *l*. On the south side of this, I would attach a hen house, *m*, and on the west, a hog house *n*, with a pen so arranged as to receive the litter from the horse stable. The yard *o*, should be so tight as to keep hens when desired.

The letter *p*, designates the kitchen garden.

I have made no estimate of the probable cost of such a building as the Cottage. The cost will materially differ in different sections of the country; varying according to the price of materials—the materials chosen, whether of wood, brick, or stone—and the style in which it is constructed and finished. This information can be best got by consulting an experienced architect and builder. The cottage would appear best built of stone, one story, and in the rural gothic style. That the chambers may not be too

The parlor it will be seen from fig. 91, has three windows, and is so situated as to have a direct view of the grounds in three points of the compass. Suppose the buildings are facing the north. Then the entire portion of grounds lying north, with those on the east and west, as far back as the dotted lines marked *a*, and *b*, (fig. 92,) could be readily seen. If the windows on the east and west sides of this room, are made to extend to the floor, so as to open out into the verandahs, this would be most delightful. The kitchen is of the same size and as delightfully situated as the drawing room, having the same number of lights, and almost as extensive a view. The closet may be so divided as to accommodate both bedrooms; or others might prefer to have the bedrooms un-



Plan of Grounds, &amp;c.—(Fig. 92.)

warm during midsummer, they should be constructed with a vacuity between them and the roof, of several inches, and ventilated at the top.

Berlin, Conn., July 20, 1842.

R. NORTH, JR.

## ST. MOOR FARM, &amp;c.

MESSRS. GAYLORD & TUCKER.—The introduction, by "Subscriber," through the medium of your periodical, to the agriculturists of the United States, of my farm, my manager, and myself, renders it incumbent upon me to make a brief commentary.

The property alluded to, is less than a title of that bequeathed by my father, the late Col. John Ambler, of the city of Richmond, Va. to his children. During the early period of his life, he resided at Jamestown, and on giving that well known estate to my eldest brother, removed to Richmond, where he continued the residue of his life. He was therefore an absentee proprietor, and in no way responsible for the condition of the farm when it came into my possession.

Your correspondent in referring to the improvement of the stock on my farm, omits all mention of the horse. My success as a breeder of the blood horse, has been so decided, that I may venture to say by brood mare "Countess Plater," has done as much to identify my name with the turf recollections of the "country," as has the extraordinary skill of Mr. Satterwhite, in the management of the farm, to connect it with the agricultural history of the "county."

I bear willing testimony to the justice of the encomium passed upon Mr. Satterwhite, by your correspondent. He has set an example worthy of all imitation, because he introduced a system, which from the commencement, made the farm produce not only the wherewithal to purchase the materials essential to increase its fertility, but also very considerable "net profits." A most satisfactory demonstration, how groundless is the prevailing notion of the farmers around him, that they cannot afford to improve. It is well worthy of remark, that Mr. Satterwhite has effected all his improvements, without abandoning the tobacco crop; a conclusive answer to those who object to farming, because the wheat crop is subject to so many disasters that they cannot rely upon it, and too easily persuade themselves that if one hopes to improve, one must cease to cultivate tobacco.

Mr. Satterwhite has made one very valuable addition to the beauty, fertility, and convenience of the farm, which deserves especial notice. All our farm houses are situated upon a high, dry ridge, which rendered the labor of conveying to them the necessary quantity of water, incalculable. His active mind originated a plan, which a few hours labor carried into successful operation. My land runs along the base of the Tobacco Row mountains, which abound in springs. He selected a bold, a beautiful and never failing stream, which issued from one of these fountains, and with no other instruments than a level and a three horse plow, he conducted it by Farm Pen barn, Manager's house, garden and stables, to the manifest advantage of the land on either side, and the unspeakable wonder of his neighbors. By the use of pipes, this water could be conveyed to the third story of my own mansion—pipes would be necessary, because a valley intervenes between Mr. Satterwhite's house and my own. This stream would also enable me to have a beautiful cascade between the two houses, and a pretty "jet d'eau" in my front yard.

The brick dwelling house referred to by your correspondent, was erected, not as a residence, but to perpetuate the memory, of the perfect success which crowned the first sustained effort, to improve the agriculture of this immediate vicinity, and I consider it a very appropriate and quite a handsome monument of the prosperity of the farm.

Should either the notice of "Subscriber," or the present communication, create sufficient interest to make further information desirable, in relation to the system adopted on my farm, or the future results—I will undertake during some one of the frequent visits which my deep and abiding desire to advance the cause of agriculture, will lead me to pay St. Moor, to furnish such particulars as may be asked for.

Respectfully,

PHILIP ST. GEO. AMBLER.

St. Moor, Amherst Co. Va., Aug. 13, 1842.

## CHEMICAL MANURES AGAIN.

I have been prevented, Messrs. Editors, by a combination of circumstances not necessary to detail, from earlier noticing some strictures of your talented correspondent, Wm. Partridge.

In the April No., current volume of the Cultivator, p. 61, you published a communication of mine upon Chemical Manures, in which I referred to some statements made by Mr. Partridge, at p. 181, of the 8th vol. of your paper, under the belief that he had penned that article without due reflection.

In noticing my strictures however, at p. 97, of the present vol. of your paper, he reaffirms what he had previously written in regard to the use of quick lime in the manufacture of Sul. of Ammonia from putrid urine.

Hear him:—"If caustic lime be a necessary ingredient in making vegetative powder, its use can only be necessary to liberate pure volatile ammonia from the salts with which it is combined when in the state of urine." "Plaster of Paris is a sul. of lime, having little affinity for carbonates or sub-carbonates of ammonia; but when caustic ammonia is presented to it, a portion of the sul. acid of the sul. of lime will combine with the ammonia and leave the lime, forming a sul. of ammonia and a sub-carbonate of lime." "Hence the use of lime in the composition of vegetative powder." "It is a well known law in chemical action, that when a combination of an acid and an alkali has to be decomposed by another alkali, having a greater affinity for the

acid than that already in combination, a given portion will readily combine with the new alkali offered."

Let us try the case upon the principle here laid down by my friend Partridge. Plaster of Paris, quick lime, and putrid urine, must all be brought into contact; the quick lime will decompose the alkali of the ammonia; the carbonic acid, thus found in combination with the ammonia, will enter into the lime, and pure volatile ammonia will be liberated. I presume it is a fact which Mr. P. will not call in question, that pure volatile ammonia will combine but slowly with plaster of Paris; if so, after pure volatile ammonia has been liberated by the use of quick lime, before chemical action can possibly take place with the sulphuric acid of the plaster, the ammonia would be driven off and lost. Under this impression, I must beg leave to decline the use of quick lime in the manufacture of sulphate of ammonia.

Hear Mr. Partridge again:—"Mr. G. W. speaks of obtaining sulphate of ammonia, by mixing urine with plaster of Paris or sul. of lime." "In this our opinions differ in toto." Being myself but a tyro in agricultural chemistry, it is perhaps the very height of presumption in me, to question any of the positions of your learned correspondent, who I should judge to be an adept in the science.

I must therefore turn him over to one equally learned, I mean Prof. Liebig; he remarks, "carbonate of ammonia, and sul. of lime, (Gypsum,) cannot be brought together at common temperatures, without mutual decomposition. The ammonia enters into combination with the sul. acid, and the carbonic acid with the lime, forming compounds which are not volatile, and consequently destitute of all smell."

The "compound" above alluded to, is the sulphate of ammonia and carb. of lime. He remarks further, "If a field be strewn with gypsum, and then with putrid urine, or the drainings of dunghills, all the carb. of ammonia will be converted into the sulphate, which will remain in the soil." "If we strew the floors of our stables, from time to time, with common gypsum, they will lose all their offensive smell, and none of the ammonia which forms can be lost." From the above quotations it will be seen that Prof. Liebig, "differs in toto," from my friend Mr. Partridge.

Hear Mr. P. again:—"Other salts, beneficial to vegetation, will be liberated by using quick lime in making the vegetative powder." "Urine contains sul. potash, sul. soda, phosphate of soda, &c. amounting in the aggregate to fifteen per cent; and nearly all these valuable products will be made available by caustic lime."

I am at some loss, Messrs. Editors, to comprehend the meaning of your learned correspondent, in the above quotation. Does he mean to say that the salts there enumerated, when "liberated," or set free, "will be made available" by combining with the sulphuric acid of the plaster? Or does he mean to say that until they are "liberated" by the use of "quick lime," they are neither "valuable" or "available?" I have been accustomed to regard them as having no volatility, and being already in a condition serviceable for crops. If I am right in this opinion, it would seem rather hazardous to "liberate" them, by the use of "quick lime," which would endanger their escape and consequent loss. Mr. P. has fallen into error, as to the value of these salts; he has put them down at "fifteen per cent." "The celebrated Swedish chemist Berzelius," in his analysis, has put the aggregate at less than seven per cent; deduct from them for urea, a small portion over three per cent, and the sulphates, phosphates, &c. will be less than four per cent. The urea is that portion which becomes volatile in putrefaction and is in danger of being lost, and constitutes nearly one-half of all the fertilizing salts found in human urine.

I have not written the foregoing, Messrs. Editors, in the spirit of controversy. I am an inquirer after truth, and believing as I do, that the agricultural community have a great interest involved upon the subject manures, I feel disposed, however unsuccessful, to oppose whatever I believe to be wrong, and at the same time I wish to elicit a free and full discussion of the subject of manures in general. Yours truly,

GEORGE WOODFIN.

#### PAULAR MERINO SHEEP.

MESSRS. EDITORS—I have been much interested of late in the remarks upon sheep and sheep husbandry, which have appeared in your truly excellent paper, especially in two communications from S. W. Jewett, of Weybridge, Vt. I am confident Mr. J. has not said too much in reference to this variety of sheep—am certain also, that in the Cultivator for the present month, we have a very perfect likeness of a Paular buck.

This buck is one which Mr. Jewett purchased of my brother-in-law, Alfred Hull, of Wallingford, Vt., some three years since. He purchased of Mr. Hull, one Paular ewe, also, at the same time; whose first lamb after Mr. J. bought her, is, I presume, the buck whose likeness you gave us in the March No. of the Cultivator.

My brother-in-law's flock (now about 500,) originated from the pure Paulars of the Hon. Wm. Jarvis; and they have probably been kept as pure, as any flock in Vt. Mr. Hull keeps pure Paular bucks, constantly for sale; has sold hundreds within the last 12 years, from \$8 to \$10 per head; which speaks volumes in their favor.

I have, formerly, kept a few hundred sheep—have tried several varieties of fine woolled sheep, among which was the pure Saxony; and I verily believe, the pure Paulars to be the best adapted to our northern climate, and

on the whole, the most profitable to the wool grower, of any fine woolled sheep with which I have ever been acquainted. They are no "humbug."

In proof of what has been said of their excellence, permit me to state, that I have a small flock (90,) which I have raised from stock selected from the flock of my brother Hull, have kept them unmixed, have raised this year, one lamb to each ewe, two years old and upwards, have rarely lost a lamb in four years. My breeding ewes, and yearling bucks and ewes, (I have no wethers,) have given me, on an average, at each clip, for the last two years, 5½ lbs. of washed wool. I have sheared in one instance, nine lbs. five oz., from a buck 13 months old. My stock buck, now three years old, gave this season, twelve lbs. and eleven oz. wool. (The figure of Mr. Jewett's buck, in last Cultivator, is almost his perfect likeness, in full fleece.) Several of my "full mouthed" ewes, with each a lamb by her side, have given per head, from 6½ to 6¾ lbs. I have sold all the bucks I could raise, at \$10 per head, to my neighbors at one year old; except a few yearlings now on hand, which will all be taken before Dec. next. Have sold several this season, already.

R. A. AVERY.

Galway, Saratoga, Co. N. Y. Aug. 17, 1842.

#### COMMENTS ON THE AUGUST CULTIVATOR.

The first thing which arrested my attention in this number, was the various Sweepstakes proposed therein; and I am sorry to say, that I cannot consider them as at all favorable to our cause. They will certainly produce more competition than your premiums alone. But to me they appear to proceed from the same gambling spirit—so hostile to farming—which produces horse racing; although I am willing to believe that the proposers ascribe them to very different motives.\* The project, I sincerely hope, may not seriously injure any of the parties concerned in them; but it has brought to my recollection the following epigram on a distinguished and luckless member of the turf:

"Tom ran so long and ran so fast,  
His bottom could not always last;  
His cash grew short,—and then—to pay,  
He distanced all, and ran away."

That I may not appear presumptuous in expressing this opinion, permit me briefly to assign a few of the reasons which have produced it. In the first place, it is perfectly demonstrable, that all but the winners engaged in these sweepstakes, must lose the whole amount of their subscriptions, without the smallest compensation. And in the next place, they will give a disproportionate encouragement to the raising of stock, at the same time that they withdraw from the improvement and culture of the soil—which is much the most important branch of husbandry—a portion of that attention which every land owner must give it to insure success. Again, it is equally demonstrable, that in all these sweepstakes, the risk of loss incurred by each individual who adventures in such a lottery, is increased exactly in proportion as the number of subscribers may increase; whereas, if they would content themselves to compete only for the premiums offered by the Societies of which they are members, they could lose nothing but the cost of bringing their stock to the place of exhibition. Now let us suppose that the amount of their subscriptions to the sweepstakes had been laid out in the purchase of some of the most fertilizing manures now in use, and in grass seeds, instead of subjecting it to a certain loss by all but the winners of the purse; is it not perfectly manifest that such an investment would not only benefit all who made it, in a manner both certain and direct; but would, indirectly, be highly advantageous to others, by the good example which it would offer for their imitation?

In the plowing sweepstake, I perceive the proposer makes quickness of execution, the second condition. Now although I have always noticed that it is one of the requirements in all plowing matches, I must take the liberty to say, that in my humble opinion, far too much importance is constantly attached to it. Every farmer knows that the speed usually exerted on such occasions, cannot possibly be continued but for a very short time. They also know that many a team which would prove quicker than others for a few minutes, or even an hour's work, could not do near as much in a day, as some other teams which would prove slower during a short exertion. Why then, should speed in plowing matches be always considered so important as generally to be ranked first among the requisites to good plowing? I should not be for excluding it altogether, but surely it is usually estimated much beyond its value, unless indeed it were to be tested by at least half, if not a whole day's work, instead of that of a few minutes. It is in plowing as in racing, where we often see quarter nags, (as they are called,) which can beat, for a distance of four or five hundred yards, other horses that could doubly and trebly distance them in a four mile heat. Plowing matches should be made solely to encourage good plowmen and well broke teams. But to determine the comparative merit of plows themselves, all should be tried by the same team, and by the same plowman, who should have no interest whatever in any particular plow exhibited for trial. Then the best plow would always gain the premium, whereas I have sometimes seen it gained by

\* While we give place to the strictures of our correspondent, we must enter our dissent from his conclusions, especially in this particular instance. Certain it is, that the gentlemen who proposed the sweepstakes, were actuated by no "gambling spirit," nor by any desire of gain, the only object being to make up a purse for premiums on such animals as are excluded from competition for the Society's regular premiums.

an inferior one, entirely owing to the greater skill and dexterity of the man who managed it.

THE shipment of 400 tons of bones from Philadelphia, which you mention in this number, seems to have been caused by the same species of reckless, uncalculating folly, recorded of the man who killed his hen that laid the golden eggs. Surely, if English farmers could afford to send 3,000 miles for them, and buy at 12 and 13 dollars a ton, Pennsylvania farmers could much better afford to give that price for them, at their own doors. I know not how many bushels of bone dust the 400 tons would make; but I presume it is by no means an extravagant calculation to say, that if they had been applied to the lands of Pennsylvania, instead of being sent to fertilize the soils of England, at a pitiful profit to the sellers of only 4 or 5 thousand dollars, they would have produced to the Pennsylvania farmers double or quadruple that sum, by the additional improvement imparted to their lands.

UNDER the head "An Agricultural School," you have given us an extract from an English work, which promises to be very useful. If it would have the effect of establishing such schools in the United States, I should hail it as a real blessing; for I believe that nothing else, in connection with experimental farms, is now wanting to make American Agriculture soon equal to that of any country in the world. Yet strange to say, the agricultural spirit which now seems to pervade our whole Union, has not yet manifested any desire to establish them, notwithstanding the numerous and most zealous efforts which have been made by their friends, to give it that direction. It is true that Mr. Pedlar, the able co-editor of the "Farmer's Cabinet," has lately proposed to open an Agricultural School connected with an experimental farm, on the banks of the Delaware, 12 miles above Philadelphia. This, however, is the solitary instance of the kind, so far as I know, in any part of the United States; and it remains to be seen whether he will meet with sufficient encouragement to keep it up. Most heartily do I wish he may succeed to the full extent of his wishes; for so highly do I think of the importance of such schools to the best interest of our country, that I would willingly attempt to open one myself, after engaging competent assistants, if Congress would lend me, for a long term of years, rent free, a hundred or two acres of the public lands, in the city of Washington, now and ever since the establishment of the District of Columbia, lying entirely useless, except as a grazing common for every body who chooses to turn their stock on it. But being no party man—no beggar of favors either from great or little men, I would just as soon request them to recommend me as President of the United States, as I would ask them for such a loan.

Your preaching on "the necessity of economy," although excellent and undeniable both in argument and facts, will prove, I fear, of little more use to our agricultural brethren in general, than would be an attempt to persuade a confirmed sot to abstain from intoxicating liquors. Indeed, all classes of our community appear to be so thoroughly infected with habits of extravagance, that nothing will cure them but utter inability to obtain the means of indulgence; and that inability increases with such alarming rapidity, that he whose downward course is not arrested by it, must be deemed to be past all hope of reclamation.

"Encouragement to Farmers." This is the title of a short article which gives Gen. Dearborn of Massachusetts, as authority for declaring that "97 out of every 100, who obtained their livelihood by selling, failed or died insolvent." To say nothing of the incredulity of such a statement, I would merely ask what sort of farmers must they be, who would feel encouraged by any such wholesale ruin among their own fellow citizens?

UNDER the head "Dictionary of Terms, &c." there are some remarks upon "Hybrids," and "Indian Corn," on which I beg leave to offer a few observations. It is said that "Hybrids among animals, do not have the power of re-production." I believe this is true in general. But there is a perfectly well authenticated case stated in Ruffin's Farmer's Register, of a mule that produced a colt; I myself have conversed with two gentlemen of unimpeachable veracity, who testified to the fact as having happened within their own knowledge.

In speaking of Indian Corn, the author says, "northern yellow corn is considered the most nutritive," and can be preserved longer in a perfect state than any other." But I would respectfully ask why and by whom it is so considered? Has any comparative analysis ever been made between the yellow and the white; or any other rational mode for ascertaining which is most nutritive, ever been resorted to? If not, ought we to take for granted, a matter so important to all the consumers of corn? It is true, that there are more northern varieties of yellow corn which are very hard and heavy, than of the southern white varieties thus characterized. But there are two or three of them as hard, flinty, and heavy, as any of the northern yellow kinds which I have ever seen, and consequently should be deemed fully as nutritious, and quite as capable of being long preserved in a perfect condition, until satisfactory proof can be given of the contrary.

It is a good adage at the bottom of one of your columns, which tells us, that "to accomplish much, a man must live as if he were immortal." But I query whether he would not accomplish more, who lived under the con-



stant and thorough conviction that he would be eternally punished in the next world, for all the time which he wasted in the present.

I beg leave to return my best thanks to Mr. H. D. Grove for his complimentary notice of Commentator, and to assure him that my remarks will certainly be continued—without "fear or favor" too,—at least so long as they occasionally meet with such encouragement as he has been pleased to give them. As for my "touching tender spots," I can truly say that should I commit any errors in this way, they will proceed from the head, and not the heart; for my sole object being to throw in my mite towards the promotion of American Husbandry, I write under the constant belief that it must be seasoned a little to make it acceptable. I myself cannot relish meat without salt, and of course conclude that others have a similar taste.

UPON Mr. E. H. Northrup's gate, I would merely remark, that if the wagoners and cartmen in his part of our country, require one "13 feet in width," to miss running against the posts, they must still need much practice in driving, for the common width, wherever I have traveled during a long life, has been 10 feet—some few inches under or over.

SINCE Mr. Wm. H. Sotham calls Mr. Morrell "a one sided writer on cattle," I should be gratified to learn how many sided a writer he calls himself. He must be at least five or six sided, (pentagonal or hexagonal,) if he claims to be an impartial judge of all the varieties of imported cattle, for I believe there are not less than five or six kinds now in the United States.

He says, and so say I, "it is very important that writers for your paper, should confine themselves to well founded facts, and not make assertions that have no foundation." But unless I am greatly mistaken in the public taste, if the Cultivator contained only facts unaccompanied by any remarks whatever, it would be as little read as the long genealogies in the Bible.

Mr. Sotham himself, however, does not appear altogether well disposed to practice what he preaches. Witness the following assertion in speaking of some communication by Mr. Randall, in regard to the common cattle of this country:—"He may select," says Mr. Sotham, "the best, if he chooses, and breed them until he is the age of man, and my word for it, he will never breed a beast that a good judge would condescend to put his hand upon." Well done, friend Sotham! for if this be not one of those assertions which you yourself have condemned, I know not what can justly be so called: unless, indeed, you can produce some person in our own country who is "of the age of man," and who has actually been making the experiment all the time he was attaining that age, but without success. Mr. Bakewell made a similar experiment in England, and it is presumable with no better cattle to begin with, than Mr. Randall might possibly find of what is called the native breed in New-York. Yet Mr. Bakewell succeeded perfectly, and long before he was "of the age of man," if Mr. S. means three score and ten, by that expression. Why then, could not Mr. Randall succeed in his State, by pursuing the same method?

THE receipt "to restore rancid butter to its original sweetness," has been tried long ago, by at least two of my female acquaintance, and like hundreds of other "it-is-said," (if I may coin a term,) has proved utterly worthless. I doubt much whether there is any cure for it. The best would probably be to compel the makers of it, if practicable, to swallow a good large dose of it, every morning, on an empty stomach, until they ceased to make any more.

COMMENTATOR.

#### POTATOE OATS—CALIFORNIA WHEAT.

MESSRS. GAYLORD & TUCKER—I have read the several articles in the Cultivator, on the subject of the Potatoe Oats, elicited by my communication some months since, cautioning farmers against cultivating them. I had intended from the first not to make any reply, as my original object was only to call attention to the facts stated by me, as that alone would correct the evil if it proved to be one, or the error if the conclusion I had arrived at was erroneous. I stated the fact of the indigestibility of the potatoe oats, by authority of the most extensive livery stable keepers in Baltimore, the Quartermaster of the U. S. Army, stationed here, (who supplies large quantities of oats to the mounted troops here and in the Southern Army,) W. Kendall, proprietor of the race course here, and several other horse keepers; all of whom have used potatoe oats, and did not discover their error till they had done their stock considerable injury, and not one of whom can now be induced to purchase potatoe oats at any price. I did not state those facts as of my own knowledge, nor until repeatedly solicited to do so by several of the gentlemen above alluded to. It will be observed that not one of the gentlemen referred to as my authority for the statement, can be influenced by any motive of interest or sinister design; on the contrary, if the article was a good one, it would be clearly to their interest to promote its cultivation to the greatest possible extent. I would therefore respectfully call "Commentator's" attention to the circumstance, that "facts are stubborn things," and not to be set aside by mere reasoning. Suppose other kinds of oats and grain do "partially pass undigested," is that fact sufficient to prove that more potatoe oats do not pass undigested than of other kinds? And suppose potatoe oats are heavier than other kinds, does that fact prove that they contain more nutritive matter? It is a fact that the potatoe

oats are covered with a double and very thick tough and closely fitted husk, and I have little doubt its increased bulk and weight, as well as its indigestibility, are attributable to this. But my object is not controversy, especially with the respected author of "Commentator;" I merely desire that the subject may be carefully examined by those interested, horse owners and farmers; and if they find I have been led into error, you may be assured, Messrs. Editors, that you have not a reader that will be before me, in willingness or readiness most gladly to communicate the fact to you.

CALIFORNIA WHEAT.—I have been applied to repeatedly for this newly discovered wheat, for information on the subject, and for seed. I believe this is the same article with a new name, that I have been instrumental in killing several times in the course of my life. It is the old Egyptian Wheat, *Triticum compositum*. It has been cultivated in Europe in a small way, for forty years; in America, for thirty years; it will do tolerably well where our good common kinds cannot succeed, but no where else. I observe this humbug has just laid another egg in Europe; a remarkably fine specimen of the mummy wheat having been raised the present season by the "Bath Royal United Horticultural and Botanical Society." So our countrymen may look for a whole brood of this insect spreading over this country next year. Many years since I obtained a few seeds of mummy wheat from Paris, taken from the body of a mummy then recently imported from Egypt; but I soon found what it was—it was the well known Egyptian wheat. So is the California wheat, and the Mummy wheat now in the Bath Society's grounds, all the same thing, and all good for nothing where good wheat succeeds. Let us watch the advent of the new humbug from England, it will soon be upon us, and let us all be prepared for it, not with a five dollar bill for each head of wheat, which the originators of the California humbug had the face to ask, but with the knowledge which will enable us to escape imposition.

G. B. S.

#### CULTURE OF WHEAT.

(Continued from p. 160.)

3. HARVESTING OF WHEAT.—I believe that our farmers err in allowing their wheat to stand too long before cutting, much more frequently than by cutting too early. Indeed, I do not know that I have ever seen a sample of wheat from a crop injured by being cut too soon. But I have frequently seen great losses sustained by allowing wheat to stand until it was what is called dead ripe, when it will shell freely in cutting and gathering. Some varieties are much worse in this respect than others, but all, if allowed to stand too long, will subject the farmer to heavy losses in harvesting. The least attention to vegetable physiology, would teach us, that after the joints or stem below the ears have become yellow and solid, no more nourishment can be received, as the sap has ceased to circulate, by which alone it can be conveyed. I have found that when the wheat was cut in this state, (and at this time the berry will not be soft, nor very hard, but so the nail will indent it readily,) the grain would be of a fine color and quality, and the loss from shelling in the field, or in harvesting, a mere nothing. It is objected that when wheat is cut early, it is threshed with difficulty. This is true in part; but since the introduction of machines, this is of little consequence, as a properly constructed machine will thresh all kinds clean, and with sufficient celerity. The experiments made in this matter by Mr. Hannam, the substance of which have been given in the Cultivator, are I think deserving the attention of farmers. For seed wheat, however, I prefer that which has fully ripened and matured in the field. The process of nature, which is to ripen seeds until they fall to the earth of their own accord, may be advantageously imitated in saving seed wheat. Independent of the wheat being fully matured for seed, the straw in this case is so thoroughly dried that no fermentation can ensue, and the germinating qualities of the berry are unimpaired.

4. SOME EXPERIMENTS.—Always a disbeliever in the transmutation of the cereal plants, as much as in the transmutation of metals, I have still felt some curiosity in the discussion which has been carried on in this country in regard to the changing, under certain circumstances, of wheat to chess. Although contrary to every known law of vegetable physiology, and without a single analogy in the whole range of organized existence, the transmutation of wheat into chess has found believers and supporters among many of our respectable farmers, and perhaps it would not be a subject of so much regret, did not the belief of the theory lead to a practice directly calculated to perpetuate the evil. The man who believes that chess will not grow, or that wheat will change to that plant, will not be likely to take much pains to clean his seed, or weed his wheat from the growing plants. During the controversy which was carried on in the early volumes of the Genesee Farmer, on the subject of chess, it was maintained by some that chess would not vegetate; that shrunk defective wheat would produce chess; that freezing out the roots of the plants, or mutilating them would do the same, and that the ears of wheat that are left on the ground at harvest to shrink and swell until the "best properties" of the grain were lost, would assuredly change to chess when grown.

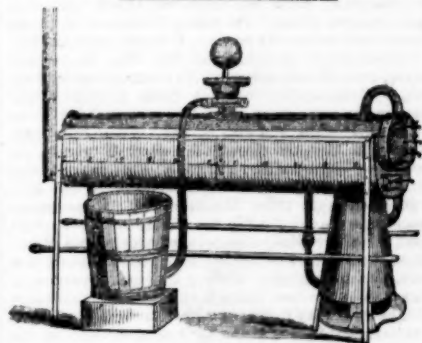
To test some of these theories, I marked out a piece of ground in my summer fallow, when ready to sow my wheat, which was the 2d of September, and used it for the following experiment.—First, I made two furrows across the plat of ground, in which I sowed pure chess, carefully picked by hand, from wheat of the same year's growth. Second, in two more furrows, I sowed shrunk and defective wheat, picked by hand as before, and the

worst I could select. Third, two furrows were planted by ears of wheat gathered from a field cut in July, and the ears had lain on the ground till I gathered them for planting. They were laid on the ground in the furrows, without being covered with earth, and so remained exposed until they germinated; indeed they were never covered at all. Fourth, two more furrows were sown with pure wheat picked by hand, and of course free from chess. All vegetated, the ears of wheat, the latest of all, a result that was to be expected; and the chess the thickest of all. In the spring, the plants in all the rows stood very well; but the chess plants had evidently suffered the least from the winter, and commenced their growth the earliest, proving that they were the hardiest. The chess rows tillered or spread rapidly, and were of a most luxuriant growth; so much so, that at harvest there were probably five times the number of chess heads that there was of wheat, in the same number of rows. In the rows grown from the defective seed, from the gathered and injured ears, and the pure wheat, there was no material difference in the product, except that the plants grown from the pure seed were the most vigorous, and gave the largest, handsomest ears. In the berry there was little difference. But in none of them did any chess, or anything like it appear; from the shrunk wheat, the damaged ears, and the pure wheat, pure wheat, was grown and wheat only. In one of the chess rows, was a root, producing three or four ears of wheat; but as no one, I presume, contends that chess will turn to wheat, a solution will be found in the probability that with the selected chess, was taken a kernel of shrunk wheat, mistaken for chess.

On my soils, which are inclining to be heavy, I have not found the benefit from rolling winter wheat, that I have from the use of that implement on spring grain. Last year I sowed three acres after peas, the ground fine and in good condition. One-half the piece, and that the part I thought best, I rolled well, and furrowed out, to drain off surplus water, as usual. The other part was sown and harrowed in the usual manner. This spring when the snow went off, I found to my surprise, that the rolled ground had suffered the most, on a very considerable part of it not a root being left, exhibiting any sign of life. On that which was only plowed and harrowed, the plants stood very well, and gave a handsome product. Finding that nothing would grow on the rolled ground, I plowed it up and sowed it to oats. In this case, I attributed the loss of the wheat plants to the smoothness of the ground, which allowed all the snow to blow off, leaving it bare, and consequently liable to freeze harder than that, where the inequalities detained the snow, and kept the ground longer covered.

One thing more, and I will close this already, perhaps, too protracted paper. There was some mildew or rust on the whole field, and that experimented upon, did not escape; but while the wheat suffered, the rows of chess were as bright and clean as the grass in the corners of the fence, near by. Not a particle of rust was to be seen upon it; thus proving that its character was so totally different from the wheat, as to render it unfit for a nidus to the mildew fungus peculiar to grain.

#### A WHEAT GROWER OF WESTERN NEW-YORK.



PORTABLE STEAM GENERATOR.—(Fig. 93.)

MESSRS. GAYLORD & TUCKER—I flatter myself that I have now completed at my Steam Engine and Machine shop, No. 12 Quay st. Albany, the best article for generating steam now in use. It is a combination of the vertical salamander with the horizontal boiler, or reservoir; the salamander furnace being inclosed in a casing of iron and surrounded by water; two pipes, connecting the salamander with the reservoir, one for water and the other for steam, at top and bottom, form an alternate circulation of water round the head salamander. This generator is peculiarly adapted to domestic purposes, namely, cooking, washing, steaming vegetables, boiling coffee and tea, clarifying sugar, heating water for bathing, heating green houses, or generating steam for any other purposes; and are considered, by those who have them in operation, to be superior to any article now in use for the same purposes, being simple and easy to be kept in order, and a greater saving of expense than is afforded by any other boiler. They are made of four different sizes, at prices from \$40 to \$80, to accommodate different families and establishments. In boarding houses and public houses, they will be found of great service.

It has great advantages over any apparatus now in use, for applying the steam to all or any part of the above purposes at the same time, or as may be wanted. This generator may be placed in the kitchen or out house,

and a pipe taken into an upper or adjoining room for bathing or washing, or conveyed to an outer building for steaming food for stock. A pipe may also be taken to the green house or any other room to keep that warm; and all the different apparatus to be charged by turning a cock. The above drawing only shows one pipe and tube, but as many may be applied as are wanted. I have one that has four different apparatus attached.

Albany, Sept. 8, 1842.

MELLEN BATTEL.

The following certificate is from the Alms House committee of this city, consisting of Messrs. G. V. S. Bleeker, J. Groesbeck, and V. Ten Eyck:—

"We, the Alms House committee, have now in use, two of the above mentioned Steamers for cooking and washing, and have no hesitation in recommending them to the public, to be superior to anything we have had in use—being more durable, and less expensive to keep in order, or fuel."

#### SOUTH AMERICAN EVERGREEN GRASS.

MESSRS. GAYLORD & TUCKER—Enclosed I send you a specimen of grass, which I have been anxious you should receive for the last 18 months. You will, however, necessarily receive it greatly impaired in many of its most valuable features, from the mode of conveyance, which I exceedingly regret, since you will be unable to form an adequate idea of the luxuriance which it possesses, while I pluck it from the stalk. It is a native of South America; evergreen in its character, and capable of withstanding, uninjured, the frosts of our winters—spreading forth, as the spring advances, its luxuriant velvet branches, under the opening genial rays of our southern sun; and multiplying its stalks frequently from 50 to 150 and even 200, in a bunch. It grows upon a rich, loose soil, from 24 to 30 inches in height, and may be mowed, in our climate, twice during the spring and summer, giving from two to three tons per acre, of the very best hay I have ever seen, and afterwards furnishes a green pasture during the entire winter. You will not fail to observe, I think, when you touch the specimen, its velvet softness, a distinguishing feature, in the green state,—rendering it at once highly acceptable, as an article of food, to every individual of our domestic animals, from the horse down to the fowl. Indeed, I am sure, as I have witnessed frequently the present season, that the horse, cow, and Berkshire, will leave the finest oats, to graze upon this grass. Horses and cows are equally fond of it, when fed to them as hay, as I know from trial; and I presume sheep will like it equally well as hay, since they will graze it on the pasture to the very soil. I might say much more in its praise, and I think deservedly so too, but I will for the present, however, only remark that I am of the opinion, from my short experience with this grass, that it is destined to prove to the southern planter—when we shall have repudiated the present kill and cripple, and in every way injurious system of agriculture that is now practiced among us, what your clovers, herds and blue grass, and timothy, are to the north, eastern, and western farmers.

I am sorry that I am unable to give you its true botanical name, and as such, will simply give you the name which I received with the seed, viz: *South American Evergreen pasture Grass*. Its value, I hope will prove not less extensive than its name. I would remark, further, in reference to an article in the May No. of the Cultivator, over the signature of your excellent correspondent, "Commentator," that I think it quite likely this may be the same grass as that "recommended to the South Carolina State Society, by Col. Wade Hampton, which he calls *Musquito Grass*," the seed of which, he says, was sent him by a Mr. Carter, of Alabama. If this be Col. Carter, of Montgomery co., he does not live above 30 or 40 miles from Mr. Stone, on Talapoosa river, who gave me the seed in the winter of 1840; who informed me at the time, that his seed were from Metamoras, on the confines of Texas, and there, from South America, hence its name. Should it prove the same, or whether it does, or does not, I will promise "Commentator," if he still wish it, that as early after the 1st of June next, as practicable, I will send a bushel or two of the seed to Mr. Ellsworth, of Washington city, for distribution, as I am exceedingly desirous to see this grass extensively and fairly tested. In our southern climate, the seed may be sown at any season, and do well; the proper time however, I think, as does Mr. Stone, is from the 1st of Aug. to the 1st of Oct.

Respectfully yours,

N. B. CLOUD, M. D.

Planter's Retreat, Ala. Sept. 1, 1842.

N. B. Unless I be greatly deceived in some experiments in which I am engaged, in the culture of the Cotton Plant, I think I shall astonish some of your subscribers in the cotton region, toward the winding up of the present crop, in regard to an entirely new and improved mode of culture; by which I propose curtailing the expense of producing this great national staple, to one-third its present enormity! I hope to be able to communicate to you for publication in your very excellent paper, by the 1st of January next, the result of my operations and experiments; in which I will furnish you with the complete *modus operandi*, from the first furrow made on the land, to housing the cotton. This is my *Henry Clay cotton*! improved from the common seed of the country by an improved culture. No humbug to sell seed, either! If successful, the nation shall have the benefit of it, without money and without price. And that it will prove successful, is already most triumphantly apparent.

#### MANURING GRASS LANDS.

EDITORS OF THE CULTIVATOR—I have made some experiments on manuring grass lands, this season, to which, (notwithstanding the source of error to which they were exposed, and to which I shall hereafter allude,) I attach some value. I therefore forward them for publication in the Cultivator.

3d mo. 24th, staked off five square rods of ground contiguous to each other; their direction north and south. Soil, clay; an old meadow which has been mowed for upwards of 40 years; the grass is blue grass, timothy, red top, and red and white clover; its surface is nearly level, but inclines to the north enough to make the water run that way. No. 1 was left without manure. No. 2 had one bushel of strong ashes. No. 3 one bushel of air slacked lime. No. 4 two bushels of clear dry cow dung. No. 5 two bushels of clear horse manure, free from straw and chaff. In a few days, No. 2 was distinguishable at a considerable distance by its vivid greenness.

8th mo. 30th, mowed the grass on the above squares. On the 31st, weighed them as follows:—No. 1, 28½ lbs.; No. 2, 39½ lbs.; No. 3, 25 lbs.; No. 4, 28½ lbs.; No. 5, 25½ lbs.

They were all in a greener state when weighed, than I wished, but an approaching shower prevented me from delaying any longer. An obvious source of fallacy in all such experiments is the unequal drying of the respective squares; to this I attribute the weight of No. 1. Before they were cut, Nos. 1 and 3 appeared about equal, as far as the eye could judge. When I weighed them, No. 1 was evidently greener than the rest, and more unequally spread. If therefore we substitute 25 lbs. for 28½ lbs. in No. 1, I believe the numbers will pretty correctly express the relative value of these manures on clay soil meadows. Just 180 squares are contained in an acre.

Stockport, 9th mo. 7th, 1842.

N. N. D.

#### THAT BALK.

CHATTING with a friend the other day, while we were looking over his farm, and at the time examining a piece of corn, I asked the reason why a few rows near the center of the field were so much superior to the others?

"Oh, that is an old balk," was his reply.

"Can you tell me," I said, "why that strip of land is so much richer than the other part of the field, as the luxuriance of the corn proves it to be?"

"In the first place an old fence has stood there for years, while the fields on each side were under cultivation to some extent," was the reply.

"But you do not suppose that the old fence contributed much to the fertility of the soil where it stood?"

"No; but when the fields were cropped, the corners of the fences grew up to grass, which was undisturbed and rotted; or when in pasture, as much of the time it was, the sheep would lie along by the fence to get out of the sun, and drop much of their manure there; all these causes combined have given the fertility you see."

"The result of the matter then is," I said, "the richness has been given by the addition of manure in the shape of decayed vegetable matter, and animal manure; for it is not reasonable to suppose that rest alone, has added much to its productiveness."

"You are probably about right," said my friend.

"Well then, if so, would it not be best to make the whole farm into baulks?"

"Yes, certainly; but how could it be done?"

"By simply applying to every part of the farm, as much decomposed vegetable and animal matter as is found in that. In short, manure the whole as effectually as that strip has been, and all will be as productive and rich. Nature herself has pointed out the way to renovate our soils; it is for us to closely follow her footsteps, and profit by her teachings."

AN ONONDAGA FARMER.

#### THE BEECH TREE.

MESSRS. EDITORS—My attention has lately been called to the question whether the Beech tree, *Fagus sylvatica*, is ever struck with lightning; and after an extended inquiry and examination, I am brought to the conclusion, that for some reason as yet unexplained and unaccounted for, this tree has always escaped the effects of atmospheric electricity. This fact has been noticed for more than a hundred years, both in Europe and this country, and yet it is not so generally known as it should be; at least, very little improvement seems to have been made of it. In an address delivered by Dr. S. L. Mitchell, in 1826, before the New-York Horticultural Society, there is a letter from Dr. Beeton, of Tennessee, in which the writer says: "Neither tradition, nor more authentic history, give any account of injury having been sustained by a beech tree, from the effects of electricity. So notorious is that fact, that in Tennessee, it is considered almost an impossibility to be struck by lightning, if protection be sought under the branches of a beech tree." "Other trees may be surrounded by these and shivered to splinters, while the beech remains entire and unharmed." Dr. Mitchell adds, "improvement might and ought to be made of this fact, by planting and rearing beeches near and around the dwelling houses and barns of our farmers, for the immunity of cattle as well as human beings from the violence of lightning. Let a beech grove, as easy to rear as a plantation of butternuts, accompany every inhabited spot, and let solitary beech trees arise here and there over every farm and plantation." How often do we read of some flock of sheep, some two or three horses or cattle,

or men, being killed by lightning, who had taken shelter under some oak, maple, or hickory tree! And yet few farmers suffer a beech tree to stand, notwithstanding it is as shady and ornamental as the maple. "Woodman, spare that tree."

H. A. P.

Buffalo, Aug. 1842.

#### NEW ARTICLES OF CULTURE.

MESSRS. EDITORS—In your No. for August, p. 123, you appear to confound saffron, (*Crocus officinalis*), with safflower, (*Carthamus tinctorius*.) To a cultivator this mistake might produce some disappointment, and of course arrest his enterprise. Saffron gives only a yellow color, and is now rarely used in the arts, it being too costly, the price varying from six to ten dollars per lb. The principal application to the arts was for the purpose of flaming red morocco colors, but a cheaper substitute is now very generally applied. It is used more in medicine, cookery and confectionary. The only portions gathered from this plant are the yellow stigmas and part of the style. Safflower gives a beautiful pink, and is extensively used in cotton and silk dyeing, as well as for calico printing. A pigment is also made from it, which is a favorite application by those ladies who wish to give the tint of the damask rose to their cheeks. Genuine pink saucers are made from safflower. The price is exceedingly variable, depending much on the fashion of the day. I have given fifty cents per pound for it, and have bought it as low as nine cents; it is now worth twenty-five, but would fall immediately were any quantity imported. It will probably range much lower in future than in times past; as by the aid of chemistry, artists are now enabled to fix cochineal colors on cotton, answering for nearly all the colors for which safflower has been used. I am well convinced that it can never become a profitable crop for our agriculturists, until female labor can be obtained at six cents per day and find themselves.

If any of our farmers are desirous of introducing new articles of culture, there are several far more likely to make profitable returns than saffron or safflower. Madrier is very extensively used, upwards of five thousand tons having been consumed in this country in one year. It is mostly imported from Holland and France. In Kentucky, families raise it in their gardens after the following manner:—They first dig their ground to a good depth, making the mold very light and mellow; they then plant small madder roots in rows, and when they have thrown up stalks of about a foot in length, they bend them down, and throw over them a layer of mold; these will throw up fresh stalks, which undergo the same process. This covering up is continued until the third year, when the bed is opened with a pitch fork, and all the roots large enough for use, are washed and dried under a shed. The smaller roots are planted in fresh beds. The beds must be kept clean from weeds. The stalks when laid down become roots. I frequently bought these roots in the market at Cinthiana, and they proved of excellent quality. As madder is a three years crop, it will be necessary that those who go into the cultivation, should plant a field every year, as few of our farmers would be willing to wait three years for returns.

Sumach is another article of extensive import, many thousands of tons being annually imported from Sicily and Trieste. This is a perennial plant from which two crops are said to be taken in one year. It is mowed down like stubble. Many of our farmers may ridicule the idea of raising sumach, when it grows wild around them, but the imported is altogether a different species from the American, and sells at more than double the price. Ours is the *Rhus glabra*, the imported is the *Rhus coriaria*. I have seen plants of the latter growing in this country, but they are very rare.

The *Rhus cotinus* is a species of sumach, the wood of which is extensively used in Europe for golden yellows. It is grown in this country as an ornamental shrub. The leaves when crushed, have a fine acid scent, and it bears a large drab colored fleshy flower, but no berries. As it thrives well in this climate, I think it could be raised to advantage.

New-York, Aug. 1842.

WM. PARTRIDGE.

#### DOMESTIC FOWLS.

MESSRS. EDITORS—Can some of your readers inform me where I can obtain a few full blood Poland, or top knot fowls. I have not been able to find any in this vicinity that are better than some I have on hand, and these, in my opinion, are far from being pure blooded.

I have heretofore paid considerable attention to the raising of turkeys, and some of the varieties of domestic fowls, and my success has led me to suppose that I can impart some information upon these matters. But few persons seem to possess the art of raising turkeys; and many think it impossible to succeed at all, unless the old ones run at large. I have made some experiments which which satisfy me that such a "notion" is wrong. I expect now to be in a situation another season, to make experiments on a large scale, and will give the results, if worth any thing. I now think that one hundred turkeys can be raised at much less expense than the same value can be obtained from any other animals on a farm.

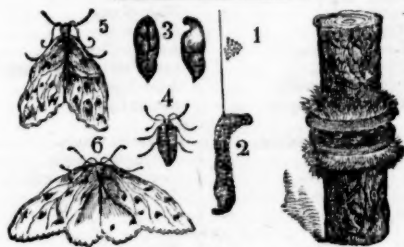
Hartford, Ct.

J. K. L.

\* We were aware of the distinction made by our correspondent, but as the inquiry seemed to refer to the first or most common saffron, we did not consider it necessary to enlarge on the difference. We however thank Mr. P. for his paper, as calling the attention of farmers and others, to the cultivation of other coloring matters still more important than saffron.



## The Garden and the Orchard.



THE CANKER WORM.—(Fig. 94.)

1, canker worm's eggs—2, a full grown worm—3, chrysalis—4, female—5, male—6, male with its wings spread; at the right hand the section of a tree with a trough upon it.

**RESPECTED FRIENDS**—I forward thee a cut of the Canker worm in its various stages, and my patent apparatus for preventing them from ascending trees, which has been very successfully used in three of the New England states for several years; and where they have been put on, in some instances the orchards have produced a thousand bushels of apples in one year. I make the troughs of a strip of sheet lead, four inches wide, bent in the form of the figure 2, with the foot cut off, and inverted; thus forming a trough and roof of the same piece of metal, and bending it to conform to the shape of the tree, and soldering the ends together. It is made so large as to leave the space of one inch between the trough and the tree, which is filled with hay, straw, seaweed, or any other substance that will prevent the insects from passing between the trough and the tree, and will be easily compressed by the growth of the tree; the ends of the substance used to pack with, must be cut off, to prevent them from hanging over and forming bridges for the insect to pass the trough. Any substance that will absorb the oil and hold it in contact with the bark of the tree, should not be used for packing the space between the trough and the tree. The trough is held in its place by tacking three or more nails into the tree for it to rest upon. After the packing has been put in, the top ends should be daubed with a little tar to stick them together, taking care not to let the tar get upon the trough or the tree, and then it may remain for years without further care, or until the tree grows so as to burst open the trough, when a small piece of lead may be soldered in at a trifling expense, and the trough will serve another term of years; and thus the troughs may be increased in size as the trees grow, so long as there is any use for them, and when the lead is taken off, it is worth two-thirds of its original cost. There is not much doubt but that the troughs will always be wanted, as the canker worms have been in some neighborhoods for the last fifty years, according to the authority of the oldest inhabitants.

Codfish oil, or what is termed liver oil, by the dealers in the article, is said to be best to put in the troughs, as it will remain the longest without drying, and for that reason is never used for painting, and is about as cheap as any fish oil, being fifty cents per gallon. These troughs should not be filled more than one-third or one-fourth full of oil. It is now well known, that a part of the canker worms leave the ground in the autumn, beginning about the last of the ninth month, (Sept.) and ascend the trees and deposit their eggs. They continue to ascend the trees from the time abovementioned, until the first or middle of the fifth month, (May,) following, whenever the weather suits them and the ground is thawed so that they can escape.

I have a number of certificates in my possession, signed by a large number of intelligent gentlemen, who have used my troughs successfully, who certify "that it is the cheapest, and most effectual, and more durable than any other method they have any knowledge of, and requires less care and attention." I have deposited a sample of the troughs at the office of the Cultivator.

Thy friend, truly,  
J. DENNIS, JR.  
Portsmouth, R. I. 8 mo., 25, 1842.

## FRUIT TREES.

**MESSES. EDITORS**—Respecting the piling of stones around peach trees, whether they will have the effect of keeping worms from the tree, I know not: but this I do know: they will afford an excellent harbor for mice that will eat the bark, and in a very short time do more damage than all the worms could possibly do them. I have frequently seen tan, chips, long dung, &c. piled around the bodies of fruit trees; depend upon it, this is all wrong; they serve only as a harbor for vermin. Keep the sward from around the roots, and spade in better dung, and my word for it, it will answer a much shorter purpose.

N. WARRINGTON.  
Springfield, Burlington co. N. J. Aug. 8, 1842.

## THE TOMATO.

THE Wayne Sentinel, published at Palmyra, in this state, informs us that "ripe Tomatoes, grown upon a last year's plant, which as an experiment had been preserved through the winter in a box, and set out in the garden in May, were picked by one of our citizens early in August. This is a simple and cheap, if not new mode, of obtaining an early supply of this valuable and delicious vegetable, and will no doubt be enlarged upon hereafter.

Another experiment successfully made by the same individual, may be new to others, as it is to us: that is, the propagation of the Tomato plant by cuttings. They take root in a few days, if set out in a hot bed; or they will readily grow in open ground, after the weather becomes warm in the spring; and in this way, by taking cuttings from an old or bearing plant which has been preserved through the winter, the vegetable may be much advanced, and an early supply obtained with little trouble."

## CULTURE OF THE STRAWBERRY.

THE horticultural readers of the Cultivator, may remember that in a former volume, we gave an account of a new seedling Strawberry, produced by Mr. Hovey of Boston, which for productiveness, size, and flavor, promised to be one of the very finest varieties of this delicious fruit. As it had never failed to fruit abundantly in the original bed, Mr. Hovey concluded that it would never fail to do so; but contrary to his expectations, many of the plants, sold to the cultivators of this fruit in different parts of the country, proved entirely barren. In the July number of Mr. Hovey's Magazine, is an interesting letter from N. Longworth, of Cincinnati, Ohio; explaining the cause of this, and in connection with the remarks of Mr. Hovey on the letter, giving information of much use to the strawberry cultivator. Mr. Longworth says:

"I saw a bed of Hovey's seedling strawberry, last spring, in a gentleman's garden in New Jersey. There were no other kinds near them, and there was not a perfect fruit on the whole bed. It was out of blossom; but I cannot be under a mistake when I say that your strawberry is, in common with the Methven Castle, Hudson, and all other good bearers that produce very large fruit, defective in the male organs, and must in your variety amount to a complete separation of the sexes, and require other plants, perfect in the male organs near them. I have kept the male and female Hudson in separate compartments for twenty years, to enable me to make a suitable selection in putting out new beds; those never had either produced a perfect fruit."

From the appearance of the vine of your strawberry, I anticipate a very large fruit; but I shall not risk it without a male Hudson near, except it be a single plant for an experiment. The moment I can see the blossom I shall be as well satisfied, as after cultivating it for years.

"I have been surprised to find no English gardeners that understood the true character of the strawberry. There is no strawberry that produces abundantly and very large fruit, where the male and female organs are perfect in the same blossom. In some varieties only, it amounts to a complete separation of the sexes; in others, those abounding in the female organs never produce a perfect fruit. Those abounding in the male organs, sometimes produce a fair crop, and where a few fruit only, it is often very large."

In all the monthly white varieties of the strawberry that I have ever seen, the male and female organs are perfect in every blossom, and as a natural consequence, the fruit is never large. The small Virginia Scarlet produces about half a crop of delicious fruit, but it is always small. I add a sketch of a male and female strawberry.



Female flower.—Fig. 95.



Male flower.—Fig. 96.

"The question has been started in England, whether all strawberries are mere varieties, or whether there are different species. I consider this question settled by the fact that the Hautboy strawberry, and some others, cannot be impregnated by the Hudson, Virginia Scarlet, or our native strawberry."

In a P. S. of May 16, 1842, Mr. Longworth adds:—"My plants [Hovey's Seedling] are now in blossom, and young fruit. I have plants, with males of the Hudson variety near them, and not a blossom will fail to produce a perfect fruit. As an experiment, I placed a vigorous plant where it could be impregnated by no other variety, and the result is, what the blossom satisfied me it would be; it will not produce a perfect fruit. But this is a vigorous and hardy variety, and my present impression is, that it will prove superior to Keen's seedling in all respects. In my opinion its being defective in male organs increases its value, but it is necessary that those cultivating it should be informed of it, and plant a few vines perfect in the male organs, near them."

There is no gentleman in this country, whose opinions on matters connected with the cultivation of the strawberry and grape, and we may perhaps add, fruits generally, is more entitled to confidence, than Mr. Longworth's. Cultivators of the strawberry, have been long aware that there were fertile and sterile plants, but Mr. Longworth was the first to point out in a clear and satisfactory manner, the cause of this difference. The very valuable paper from the pen of Mr. Downing, of Newburg, on the means of securing crops from plants defective or deficient in their blossoms, was the result of investigations and experiments instituted in consequence of facts pointed out by Mr. L. We agree with Mr. Hovey, that the public are much indebted to Mr. L. for his remarks on the strawberry, accounting as they do so truly for the manner in which many disappointments in the

culture of this fruit have arisen, and teaching so clearly the manner in which such failures may be hereafter avoided.

This very strawberry under discussion, (Hovey's Seedling,) furnishes a proof how much the knowledge conveyed in Mr. Longworth's letter was needed. The bed of original plants of this valuable strawberry, in the garden of Mr. Hovey, produced most abundantly, and so invariably that one of the chief excellencies of the seedling, as set forth by Mr. Hovey, was that the blossoms were always fertile. In his own words, in the paper before us, "We took it for granted, that there could be no such thing as a sterile plant, when all bore a crop of fruit." It was found, however, that a very large proportion of the plants vended by him, of this variety, proved sterile, and this fact, while it was a source of surprise to Mr. Hovey, was calculated not to entirely satisfy the purchaser. Fortunately, the letter of Mr. Longworth pointed out the cause of the sterility, and its remedy; and thus enabled Mr. Hovey to account for the original plants being such abundant bearers. We make some extracts from Mr. Hovey's comments on Mr. Longworth's paper:

"In the spring of 1841 we had occasion to make a new bed, more particularly for the growth of young plants than for the fruit: this bed, in order to be sure that the variety should be kept distinct, was placed in a remote part of the garden, at least fifty yards from any other kind. During last season they made a good growth, and covered the ground with the vines in the autumn. From this bed immense quantities of plants were taken for sale at that time, and the present spring; yet there was a sufficiency left to produce a good crop, and before the plants began to throw up their flower stalks, Mr. Longworth's communication came to hand, and we were quite astonished to hear that he had seen a whole bed, in which there was not a perfect fruit: we at first believed that he could not have seen the true variety; but knowing Mr. Longworth to be a gentleman distinguished in horticulture, and upon whose statements we could rely, we determined to watch the bed carefully when the plants began to bloom, and satisfy ourselves. This we did; and the most rigid examination has convinced us that he is correct. The new bed above alluded to, flowered freely, but it has not produced twenty quarts of fruit, though it was large enough to produce at least two bushels. In this bed of upwards of five thousand plants, we did not find a flower with perfect stamens. We then had recourse to the original bed, where a few straggling plants were growing; after a careful inspection we found from forty to fifty, out of perhaps a hundred left, which had perfect flowers, that is, producing both stamens and pistils; these we took up carefully, and they are now doing well. The question then recurred to us, whether the original plant might not have been perfect in its flowers, but by the rapid manner in which the runners had been increased, the flowers had become imperfect. If this had not been the case, where should the staminate plants have originated, when not one was found in the new beds? Could they have been accidental seedlings? This question cannot be settled until the plants have produced fruit another year."

"But it may be asked, how our plants in the original bed should have produced such crops. This is easily explained: in parallel beds of fifty feet in length, each containing two or three rows, we cultivated the Wood strawberry, Keen's seedling, Methven, Pine, Early Virginia, and some others. The consequence was, that however deficient our seedlings might be in stamens, the abundance of them in the other kinds was sufficient to fertilize the whole bed. It was probably this which deceived us, and led us to the conclusion that the flowers were perfect, and the distance at which the bed we have before mentioned was placed from all other kinds, has been the means of convincing us of the truth of Mr. Longworth's statement."

We think Mr. Hovey has in the following paragraph well stated the remedy for sterile strawberry plants; and we recommend the method stated, to the adoption of all whose beds of strawberries are unproductive. Those who have but one kind of the plants named, and may wish to correct their sterility, will find that fertile or staminate plants of the common wild kinds in our pastures or meadows, will be as efficient as any other:

"After what has been written, it is only necessary to know that our Seedling, the Methven, Downton, and others, should be set out in beds, near to a bed of Early Virginia, or some other staminate plants; not barren ones, or those devoid of pistils, as some cultivators have advised, as it is just as well to have such as will produce a crop of fruit. Those who may have found our strawberry a shy bearer, after this explanation, will be able to produce as great a crop as they could wish."

## NEW DISEASE OF THE PLUM.

We find in the July No. of Hovey's Magazine of Horticulture, (a publication we take great pleasure in again strongly recommending to our friends,) a notice of a new disease of the plum, from the pen of the distinguished Entomologist, Dr. T. W. Harris, of Cambridge, Mass. We copy his description, that our readers may be on their watch for the first appearance of this new enemy:

"Last year an undescribed disease of the plum made its appearance in some gardens in this vicinity, in the latter part of the month of May, and has been observed again the present season. Soon after the blossom had fallen, the fruit began to swell rapidly, and in the course of two or three weeks it had grown to more than ten times the size that

it ordinarily attains in the same period. It was soft and compressible, as though it were puffed up with air, being filled with an elastic spongy substance of a whitish color. In some of these inflated plums no vestige of a kernel remained; in others, a little soft, and empty shell was found. After growing from one-half to more than three quarters of an inch in diameter, the fruit dropped, and by the middle of June, no more of it was to be seen on the trees."

Dr. Harris has determined the cause of this premature swelling of the fruit to be the attack of a small insect, a kind of *thrips*, which he supposes attacks the fruit while in blossom, destroys the pollen, and prevents the impregnation of the fruit. Dr. H. remarks, that as yet the affection has been confined to a limited number of trees, but that should the insect multiply and spread to other trees, they would prove most destructive to the plum tree fruit. The farmer should therefore watch for their first appearance, and endeavor to devise some method of killing them while the trees are in blossom, and the fruit forming.

Most of our readers in the Atlantic states, who have had the pleasure of gathering that first fruit of the season, the Honeysuckle apple, have witnessed the effect of this insect, the *Thrips*, in the production of those enormous puffy masses called *leather breeches*. We have never seen them on any variety of the plum, with the exception of the wild, sweet red plum, once so common in all the west. When we first moved to Western New-York, we had a large number of the wild plum trees planted out; but the fruit was of so little value, owing to the attacks of this or a similar insect, which caused it to swell in precisely the manner described by Dr. Harris, that at the earliest opportunity, we replaced them by the cultivated kinds, and on these we have never seen a single instance of this defective fruit.

#### CULTURE OF THE GRAPE.

WE answer the inquiry of J. HERBERT, Esq. of New Jersey, by complying with the request of another correspondent, (U. C.) to publish the annexed article on the culture of the Native and Foreign Grape, from the *Orchardist's Companion*, to which it was communicated by Dr. UNDERHILL, of New-York:

"I have been extensively engaged for more than ten years, in the cultivation of some of our native grapes, particularly the Isabella and Catawba. These two kinds I consider preferable for vineyard cultivation for the use of the table, to any others with which I am acquainted. In 1828-9, I planted about four acres of the choicest French vines, selected by Andre Parmentier, from vineyards in France, among which were the White Chasse-las of Fontainebleau, Burgundy, Frontignac, Imperial Tokay, &c. After three years cultivation, they produced but a small crop of fruit. Although cultivated in the best manner as vineyard grapes, they soon showed symptoms of decay, and the fruit was not as sweet or as fine flavored as either the Isabella or Catawba. Several gentlemen laid out vineyards of the above kinds in the vicinity of New-York, about the same time I planted mine, which, after a large outlay of money and loss of time, proved to be worthless.

"In 1832, I cleared my vineyards of all the foreign vines they contained, considering them to be an incumbrance. I regard the question respecting the raising of foreign grapes in open field cultivation, in this country, as settled; that they will do very well under glass, I have not a doubt; indeed, you furnish the evidence of this fact, to your numerous readers, in the third number of that splendid work, the *'Orchardist's Companion.'*"

"Having abandoned the foreign vines, and wishing them better success in the hands of those who may be so unfortunate as to plant them in open vineyards, I turned my attention to those which are indigenous to the United States. I commenced replanting my vineyards with the Isabella in 1832, and with the Catawba in '35, and have been increasing them to the present time. I have now about twenty acres of these grapes, principally the former, under the most successful cultivation, and shall continue to increase the number of vines, till all my vacant ground is occupied. I find the native grapes, like other classes of plants, and the different species of our domestic animals, susceptible of vast improvement by cultivation. The Isabella and Catawba, which were growing in the wild state about forty years since, have improved exceedingly, and are capable of still further improvement by high culture.

"The quality of my fruit has changed very much within a few years; the clusters and berries are much larger and sweeter, the skin thinner, and the pulp has nearly disappeared. But I do not wish to be understood as conveying the idea that others, having a suitable situation, and good vines, with properly directed efforts in planting, pruning, &c., cannot succeed in raising as fine fruit as grows upon *'Croton Point.'*"

"The improvement in these, and others of our native grapes, will be found to be progressive, and in a few years we shall have no cause to regret the impossibility of transferring to our soil, the delicate vines of Europe, rendered feeble by centuries of close pruning. The native vigor of the Isabella and Catawba is so much greater than that of most of the vines cultivated in the vineyards of Europe, that we shall be able to raise a greater quantity per acre, than they can possibly obtain.

"The cultivation of the native grapes for the manufacture of wine, has received some share of public attention. On this subject I cannot speak from personal experience. If we are to credit the statements of many persons of in-

telligence, there cannot be a doubt that excellent wine can be made from many of our native grapes. Considerable quantities are now made in the Carolinas, Pennsylvania, Ohio and Indiana. The progress of the temperance reformation over this country, would seem to have removed the apparent necessity of turning our farms into wine vineyards to furnish the juice of the grape as a substitute for ardent spirits. But it is certain that a much greater quantity of pure, unadulterated wine, will be required for medicinal purposes, and for the Church, than we shall be able to supply by the multiplication of vineyards for many years to come. The Isabella is said to make a light sweet wine, and also champagne; the Catawba, on the contrary, a very strong, excellent wine, not inferior to Madeira. This is the opinion of a number of gentlemen who have made the latter, and taken much pains to test its qualities. The most prominent object I have had in view, in my efforts to promote the more extensive cultivation of the grape in this country, has been the introduction of a healthy and delicious article for the use of the table. Having been fortunate in the selection of such native vines, as not only possess these qualities, but are well calculated to make excellent wines, I give them a decided preference. If however, their consumption, as an article of food and luxury, should increase in our principal cities, in any thing like the ratio they have for the last five years, it will be a long time before our markets are fully supplied."

#### LIST OF FRUITS, FOR A SMALL GARDEN.

ENGLISH writers on the culture of fruit, find no difficulty in making out lists of the finest kinds adapted alike to different portions of their country. The small extent of their territory and consequent similarity of climate, and the experience of centuries in determining the adaptation of fruits to that climate, give them a great advantage over the horticulturists of this country. Here, general attention is hardly yet directed to the acquisition of the finest; great difficulties exist in procuring genuine varieties; and when these are obtained, it becomes a matter of extreme doubt whether they may be suited to the particular region intended for them in a country of such extent, the climate of whose extreme northern and southern points, is as dissimilar as that of Norway and Morocco.

Very few European fruits are ever found of much value when introduced here. All our apples ranked as decidedly first rate, with the exception of two or three, are of American origin. A few foreign pears are indeed excellent; but such is the variable character of some, that the distance of a few hundred miles, in the same latitude, seems wholly to change their qualities. The Virgalieu, for instance, in the vicinity of Boston, is considered as perfectly worthless, and as having *"run out"* from old age; while in Western New-York it is uniformly healthy, vigorous, productive, and only inferior in delicious qualities to the far-famed Seckel. On the other hand, pears cultivated at Salem, and pronounced there by the highest American authority, Robert Manning, as decidedly excellent, are found to attain scarcely the character of second rate in quality, when introduced here.

The cherry and plum do not appear liable to such a degree of change, and the same varieties are probably adapted in most cases to the chief of the northern and middle states. And although there are some exceptions, a considerable number of our best apples preserve their fine qualities through most of the New England and middle states. With all our disadvantages, if those fruits we already have, were only extensively known and cultivated, and proper attention given to the best which the country affords, a revolution of no trifling character would be the result.

To give a well chosen list of fruits, would require a general and extensive collection, with years of comparison and trial. But imperfect as the following may be, it may assist many in improving what they already have. Every variety has been proved to be excellent, and suited to Western New-York, and will doubtless succeed in climates similar in character.

The apples may be for an orchard either large or small; the number of trees of the different varieties, in either case, will be in a great measure determined by the uses intended, whether for market, for domestic table use, or for feeding farm stock. It may be merely remarked that if for the latter, a few trees of our finest early fruits, will be found excellent for domestic animals during summer and autumn, and they will not be less cheap for being rich in quality.

The times of ripening are according to the order in the lists.

#### APPLES.

Yellow Harvest,	Fall Pippin,
Bough,	Bellflower,
American Red Juneating,	Peck's Pleasant,
(of Manning.)	Esopus Spitzenburg,
Sine Qua Non,	Jonathan,
Buffington's Early,	Rhode Island Greening,
Tool's Rareripe,	Swaar,
Strawberry,	Tallman Sweeting,
Fall Orange,	Roxbury Russet,
Gravenstein,	Northern Spy.
Rambo,	

#### PEARS.

Amire Joannet,	Summer Bonchretien,
Madeleine,	Seckel,
Skinless,	Virgalieu,
Julienne,	Beurre Diel.
Stevens' Genesee,	

#### PEACHES.

Early Ann,	Noblesse,
Sweetwater,	Malacatoon,
Tillotson,	Seabolt's,
Red Rareripe,	Lemon Cling,
Early York,	Old Newington Cling,
White Imperial,	Late York,
Yellow Alberge,	Heath Cling.

#### PLUMS.

White Primordian,	Imperial Gage,
Orleans,	Huling's Superb,
Yellow Gage,	Coe's Golden Drop,
Green Gage,	Blue Imperatrice.
Washington,	

#### CHERRIES.

May Bigareau,	Elton,
Black Tartarian,	Elkhorn,
White Tartarian,	Yellow Spanish,
Mayduke,	Transparent Guigne,
China Heart,	Carnation.

#### APRICOTS.

Breda,	Peach,
	Musch.

All these, except the apples, may stand in a fruit garden occupying but quarter of an acre. Where the ground is of greater extent, two or more trees of each sort may be planted.

The apples will afford a succession of ripe fruit from harvest until harvest again; the peaches, from soon after harvest till winter; the pears, from a week before wheat harvest till mid-winter; the plums, from the same till late frosts; the apricots, for one month at mid-summer; and the cherries from the early part till the middle of summer.

Some celebrated fruits are omitted; as the Summer Queen, Newtown pippin and Vandevere apples, which are much subject to mildew on the fruit in Western New-York; the Yellow Egg plum, its place being supplied by the Imperial gage; and some others.

Some fruits of secondary quality, may be profitable for farm stock, from their great productiveness; as for instance, the Maiden's blush apple, ripening in autumn, and the Black Gilliflower, an apple excellent for keeping in winter.

J. J. THOMAS.

Macdon, N. Y. 9th mo. 1842.

#### PLANTING FRUIT GARDENS.

AN additional recommendation of the mode of planting trees in rows, as described in the last number of the *Cultivator*, which was omitted by mistake, is the facility with which the ground may be kept cultivated. Where it is not convenient to plant small hoed crops with the trees, a plow may be passed on each side of the row, using a one-horse plow for the part nearest the trees. In this way a strip of land on each side, several feet wide, may be kept clean and mellow at a very small expense. To those who have habitually neglected the cultivation of their fruit trees, the change in two or three years will be astonishing. A single fact to the point: A friend who has a very large peach orchard, sowed it this year with peas, which is indeed far better than sowing with wheat or oats, or leaving in grass; on two sides, which had no boundary fence, was a thinly planted crop of corn, which was several times plowed and hoed. The effect of this treatment was, the two rows of peach trees, one-half of whose roots were covered with the cultivated corn crop, were so much greener and thrifter than the remaining trees whose roots were wholly covered by the uncultivated crop of peas, that the difference could be easily perceived at the distance of half a mile. The probability is, that many fruit gardens and orchards, whose annual product is worth a hundred dollars, might, by an annual outlay of two dollars in judicious cultivation, be made to double at least the yearly crop, and yield two hundred dollars worth of fruit.

J. J. THOMAS.

#### TO DESTROY BUGS ON VINES, &c.

MESSES. EDITORS—Your correspondent "H. W. S. C." in the last *August Cultivator*, is desirous of information regarding the rose bug on his grape vines. It would have been better had he given a short description of the insect. In a good many treatises on the cultivation of the vine, which I have had an opportunity of perusing, various insects are mentioned as preying occasionally on it, but the rose bug is not stated as one of them. I have many rose bushes, but have never found any insect on them but the green fly; so that I am not acquainted with the rose bug.

In the year 1827, or 1828, my vines were attacked by an insect, which I was satisfied at the time was what is mentioned in books under the name of The Turtle Bug; being a clumsy, flat shaped beetle, of a brown or yellowish color, a few of them as broad as a six cent piece, but the great mass of them not larger than the striped bug that infests the melon and cucumber plants. They appeared on the bushes in immense numbers; and on striking the branches smartly with a stick, dropped off by hundreds, and remained on the ground as if dead. I happened to have at the time three or four hens kept in the garden in small coops; each coop large enough to contain only one hen with her brood of small chickens; the slats of the coop close enough to confine the hen, but wide enough apart to admit ingress and egress to the chickens, and to allow the hen to put out her head and neck to take food and water. This contrivance I had previously observed in the garden of Mr. Earl Stimson, of Galway, a gentleman well and extensively known as



one of the best practical farmers of America. These chickens soon learn to pick up worms and insects of all kinds; they become very tame and familiar, and will quickly come at the call of their feeder or any one else, in expectation of something to eat. On observing the insect to drop off as above stated, it occurred to me to call the chickens, and they devoured them as quickly as if they had been grains of wheat. By repeating this for three or four successive evenings, the whole swarm appear to have been annihilated; as not one has been seen on the bushes ever since. I think it probable the rose bug may be got the better of by this means. It is proper to add that these chickens, though answering a good purpose on account of the vermin they destroy, must not be allowed to remain in the garden until they grow large and strong enough to do mischief by scratching, digging holes, and injuring fruit and vegetables.

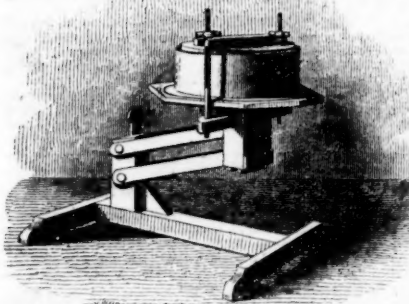
It is to be hoped the rising generation of farmers may see the propriety of paying some attention to the study of entomology; a department their fathers and grandfathers might be said to be in a great measure ignorant of; and none more so than is, gentlemen, your well wisher and humble servant,

SENEX.

Saratoga county, August 21, 1842.

Since the above was in type, we have received another reply to "H. W. S. C." from Dr. UNDERHILL, of New-York, which shall have a place in our next.

### Domestic Economy.



COLLINS & STONE'S CHEESE PRESS.—(Fig. 97.)

ONE of the Cheese Presses, of which a figure is given above, may be seen at our office, and will be exhibited at the State Fair. If it works as well as it appears, it cannot fail to command the admiration of Cheese makers. The following communication accompanied the press sent to us:

MESSENGERS, EDITORS—Will you allow me a small space in your widely circulated paper, for the purpose of inviting the attention of that portion of your readers who are particularly interested in the subject, to a newly invented Cheese Press, for the introduction of which, I am the general agent of the patentees. One of these presses has been forwarded to you, and we design to exhibit them at the Fairs in different sections of the country, and invite criticism.

I claim for this press, as some of its qualities, the following:—It is simple in its construction, not liable to get out of repair; occupying but little room, (about two feet square;) perfectly convenient to place the cheese upon it, and not expensive. I think all cheese makers, will admit at once, that these are good qualities. But with many, these things are, very justly, of but secondary account; and I speak with some confidence, when I add to the properties of this press, what, combined with those named above, must be of no small importance. The cheese becomes the weight to press itself, each pound giving a pressure of twelve pounds. It can be constructed, however, to press 10 or 8, or any other number, to 1. The precise pressure may be known, and it is sure not to exceed in any position, the given amount; and this is what cannot be said of any other press with which I am acquainted. If more pressure than the weight of the cheese is desired, it can be obtained by placing weight upon the platform: 1 lb. giving a pressure of 12.

I noticed in the Aug. No. of the "American Agriculturist," the statements of the Messrs. Allen and Mr. Marvin, giving details of their modes of making cheese, upon which they obtained premiums at your last fair. In one case it is stated that the cheeses were pressed "under a weight of seven or eight cut," and in the other, nothing is said of the weight of pressure; leaving it to be inferred, either that the precise amount could not be given, or that it was of no consequence. I presume to say there are but few cases where the weight under which cheeses are pressed, can be given with any tolerable degree of accuracy. Enough importance is not attached to the pressing of cheese. The dealers in cheese in this vicinity, inform me that in some parts of the country, much of it is injured by improper pressure; and they name counties in the state of N. York, where this is the case to a great extent.

There has not been sufficient time, since the first presses under this patent were made, to test it very extensively by actual experiments; but the few cheese makers, into whose hands they have been placed, speak of them in the highest terms. They have been, however, critically examined by some of our most scientific gentlemen,

and annexed is a copy of a certificate of Dr. Comstock, the author of one of the best works upon mechanical powers, now in use, which, if not asking too much, I should be pleased to see in the Cultivator.

Yours respectfully, L. KENNEDY, JR.

Hartford, Ct. Aug. 23, 1842.

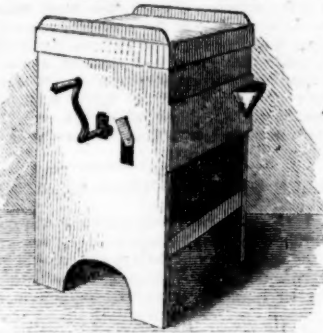
Having examined with attention, the Cheese Press recently invented and patented by Messrs. Collins & Stone, I am clearly of the opinion that for simplicity of construction, smallness of size, and practical use, it is, so far as I am informed, much superior to any machine of the kind heretofore offered to the public.

One of its peculiarities is, that the amount of pressure is graduated by the weight of the cheese, and hence, not only the exact force may be known, but the same press is applicable to dairies of all grades.

(Signed,)

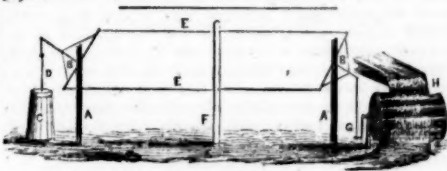
J. L. COMSTOCK.

Hartford, Aug. 1842.



CROWELL'S THERMOMETER CHURN.—(Fig. 98.)

ABOVE we give a drawing of Mr. Crowell's Patent Thermometer Churn, one of which Mr. C. has been so kind as to send us, from Lime Rock, Ct., where he manufactures them. We have not yet had an opportunity of trying it, but it is a neat well made article, and appears admirably adapted to facilitate the operation of churning. Mr. C. says they are in general use in his neighborhood, where "they have taken the place of all other churns, and are highly approved as the best and the most simple method of obtaining butter, both as to quantity and quality, and in the shortest time." The price is from \$5 to \$7.00.



WATER POWER CHURN, &c.—(Fig. 99.)

MESSENGERS, GAYLORD & TUCKER—Of the improvements given in your paper, of the different kinds of farm implements, the great majority seem to be for the more especial ease and convenience of the lords of creation. Now if this omission has been the result of selfishness or indifference on the part of those who were bound by strong obligations of reciprocity to have done better, would I lay myself open to a charge of treason, were I to advise the ladies to take this matter into their own hands, by letting their noble lords shirk for themselves, while they are engaged in improving those little household indispensables, and bringing them up to as warrantable a state of advancement as the present time will admit. The kind of system I propose recommending, it is true, requires water power, but in our country, such privileges are very common, (small streams being sufficient,) and as in this plan, distance is no material objection, it will be within the reach of a great majority of our butter makers. In order to illustrate its operation fully, and make it very plain and intelligible, I fear I shall have to trouble you with a drawing.

It appears to me that with this drawing, it will hardly need an explanation; but lest some may not think it so plain, I shall go into detail. A, A, are two pieces of timber firmly set in the ground to support the moveable frames B, B, by a pivot through where one piece of the frame meets the other at right angles. D, is the dash fastened to the other piece by two holes through them, both with pins and strings. E, E, are wires to be made of suitable length to extend from the creek to the place where the churning is to be done. The wires should be so fastened together with hooks made on the end of them, as to allow of taking down in winter. F, is an upright post to support the wires, and must be multiplied where great length is required. G, is the crank, H, is the wheel. Where there is three feet fall, and water enough to fill a hole three inches square, there is power sufficient to operate a churn on this principle. I will close this description by remarking, for the benefit of those who have small streams, that tight bucket wheels are considered the most powerful as well as economical. Let none who have convenient situations neglect to put them up, and then perhaps when the storm is raging without, you will find a calm sunshine within.

I noticed a short time since, a few patches of Canada thistles on one part of the farm, and was very much trou-

bled about them. I at first thought of plowing them, but upon the advice of a friend who should be experienced in such matters, I was persuaded to abandon it. I then took a hoe, cut them down quite in the ground, and put a handful of salt on each, laying a stone on it to prevent its getting away. The result has been, they have given no signs of life this spring.

G. COOK.

Ticuli, N. Y. June 7, 1842.

### THE TOMATO AND ITS USES.

EVERY body cultivates the tomato, and every one who has not deliberately made up his mind to be ranked among the nobodies has learned to eat it. There is a great deal of fashion in this, it must be confessed, but it is not often that fashion is active in forwarding so good a work; for if the opinions of numerous M. D.'s of great celebrity, are to be allowed of any weight, there are few things more conducive to health than a liberal use of tomatoes. The fruit has long been extensively used in Italy and the south of France, and within a few years its cultivation as an article of luxury, if not of necessity, has spread over the greater part of Europe and the United States. The fruit is the best in a warm climate, where it has an acidity and briskness unknown in a colder one. In our southern states the fruit is finer and the flavor richer, than in the northern ones; still in these last, abundance of tomatoes of excellent quality are grown, where proper precautions are taken to give them an early start in the spring. Frequent inquiries are made by those who have but lately commenced their cultivation, as to the best modes of cooking or preserving them. To answer these inquiries fully, it might be necessary to consult the taste of each individual, and to gratify these tastes as far as possible, we have collected from various sources, aided by our own experience, such directions for the use of this fruit, as will probably meet the wishes of most.

**TOMATO CATSUP.**—Use one pint of good salt to one peck of sound ripe tomatoes. Bruise them, and let them stand two days; then strain them dry; and boil the liquor until the scum stops rising, with two ounces of black pepper, the same quantity of spice, one ounce of ginger, one of cloves, and half an ounce of mace. Strain through a sieve, bottle and cork tight.

**DAILY USE OF TOMATO.**—Slice up as you would cucumbers, good tomatoes after peeling them, with salt, vinegar, and pepper. Some prefer covering the tomatoes when so sliced, with sugar. Either way they will prove palatable and healthy.

**TOMATO SOY.**—Take ripe tomatoes, and prick them with a fork, lay them in a deep dish, and to each layer add a layer of salt. Let them remain four or five days, then take them out of the salt, and put them in vinegar and water for one night. Drain off the vinegar, and to each peck of tomatoes put half a pint of mustard seed, half an ounce of cloves, and the same quantity of pepper. The tomatoes should be put in a jar, with a layer of sliced onions to each layer of tomatoes, and the spices sprinkled over each layer. In ten days they will be in good eating order.

**TOMATO OMELET.**—Slice and stew your tomatoes. Then beat up half a dozen new laid eggs, the yolk and white separate; when each are well beaten, mix them with the tomato—put them in a pan and beat them up, and you will have a fine omelet.

**TOMATO AS A RELISH FOR BEEF STEAK.**—Wash them clean, cut them once in two, lay the inside upon the bars of the gridiron, set them over pretty hot coals for about ten minutes, then turn them over, sprinkle them with salt and pepper, renew the coals, and set them to broil fifteen or twenty minutes longer; when taken up, butter them or eat them with gravy, as best suits the taste or convenience.

**STEWED TOMATOES.**—Take ripe tomatoes, slice them, put in the pot over the fire without water. Stew them slow, and when done, put in a small lump of butter, and eat as you do apple sauce. If you choose, a little crumb of bread, or fine crackers, may be added.

**ANOTHER MODE.**—Take the tomatoes and pour boiling water upon them to make the skin come off easy, let them stand three or four minutes, and then peel them. Cut them open and take out the most of the seeds, as too many of these cooked makes the tomatoes too astringent. To one dozen good sized tomatoes, put a small tea spoon full of salt, and a large spoonfull of sugar. Stew them from three-quarters of an hour to an hour and a quarter, according as how fast they cook. Stew them down so as to leave very little syrup, and be sure to serve them hot; a shallow vessel is the best to cook them in when stewed in this way.

**TOMATO PRESERVES.**—Prepare a syrup by clarifying sugar, melted over a slow fire with a little water, by boiling it until no scum rises; or good molasses may be clarified by adding eggs, boiling and carefully scumming. Take the tomatoes while quite green, put them in cold syrup, with one orange sliced to every two lbs. of tomatoes. Simmer them over a slow fire, for two or three hours. There should be equal weights of sugar and tomatoes. Some, when superior preserves are wanted, add fresh lemons sliced, and boil with the tomatoes a few peach leaves and powdered ginger in bags. Tomatoes when ripe, make a fine preserve, peeled and treated as above; but the fruit is apt to fall to pieces in the process of preserving, consequently more care is required when it is desirable to prevent this.

**TO PICKLE TOMATOES.**—Take your tomatoes and place them in layers in a pickling jar with garlic or shred onions, mustard seed, horse radish, red pepper, spices, &c. as wanted, until the jar is filled. A little salt must also

be added, as the layers are put in, it aiding much in preserving the tomato. When the jar is full, pour on the tomatoes pure cold cider vinegar till all are covered, then close up tight for use.

**TOMATO FIGS.**—Take 6 lbs. of sugar to 16 lbs. or one peck of the fruit. Scald and remove the skin in the usual way. Cook them over a fire, their own juice being sufficient without the addition of water, until the sugar penetrates and they are clarified. They are then spread on dishes, flattened and dried in the sun. A small quantity of the syrup should be occasionally sprinkled over them while drying; after which pack them down in boxes, treating each layer with powdered sugar. The remaining syrup is concentrated by boiling, and bottled for use.

**TOMATOES FOR WINTER.**—Tomatoes for winter use may be preserved by placing them in layers with salt, in jars or tight boxes. When wanted, they must be soaked in water, in the same manner as cucumbers preserved in the same way. Some prefer stewing the tomatoes until well cooked, then spreading the mass on plates or other smooth surfaces, and drying them fully, when they can be put in bags and kept in any dry place. This is the mode adopted by many in New England and elsewhere, for drying and preserving the pumpkin.

Some of the above directions or recipes have already appeared in former volumes of the Cultivator, but as the present is the season of tomatoes, it was thought that a collection of them might be acceptable and useful to our readers.

#### DAIRY SALT.

PERHAPS there is no process in domestic economy in which the skill of the operator is more required, or exhibited to better advantage, than in those belonging to the dairy; and we are convinced that the success here, is much more frequently depending on the salt used than is generally imagined. The least impurity in salt, will seriously affect the quality and preservation of butter; as it will aid and hasten the chemical changes through which butter passes while losing its fine flavor, and becoming rancid and intolerable. Salt that is very white and fine in appearance, is not unfrequently combined with other substances which injure its conservative powers; and hence that can only be relied upon which is prepared in such a way that a separation of these substances takes place previous to crystallization. In pure rock salt, nature has effected this separation perfectly; and where such can be obtained, and then ground fine, nothing as to the quality is left to be desired. The examinations made by our state geologists, prove, that next to this rock salt, (and vastly superior in strength and purity to the great part of it,) is the coarse salt produced at the Onondaga Salines, by solar evaporation. Thus Dr. Beck's analysis shows (see page 36, of the Report for 1838,) that the salt made by solar evaporation at Geddes and Syracuse, contains 932 parts of pure chloride of sodium in 1000; while Turks Island and Liverpool fine salt, gave from 984 to 988 parts in 1000. The fine salt put up as table salt, at Salina, exceeds the Liverpool in purity, and may be used in the dairy with perfect safety. But for a superior article, and one about which there can be no mistake, it is probable our farmers will find the salt made by evaporation, and then ground, the best butter salt that can be used; and we are confident if such salt was generally used in our dairies, the quality of their products would be most materially improved. Those who cannot obtain this salt, should use the best Liverpool fine they can procure, or purchase rock salt, clean, and grind it. This latter course, we understand, is taken by the Quakers at Fairfield, in Maine, the excellence of whose dairy products, is admitted wherever they are known. There can be no question but the methods adopted in making and working butter, have a decided influence on its quality; but we are inclined to believe that the kind of salt used, exercises its full share in determining whether the product of the dairy shall be good or bad, and is deserving of more consideration than has usually been given it by the dairyman.

#### CHEESE MAKING.

From the statement of Stephen Yates, of his process of making cheese, published in the Report of the American Institute, we copy the following:—"In the making of cheese in the ordinary way, as is practiced by the dairymen of Herkimer county, I discovered that when the curd was scalded, an oil would arise to the top and run off in the whey. I directed my dairymen not to scald the curd, and found that I not only retained the aromatic oil, but also all of the cream that otherwise would escape in the whey; and I kept the cheese in the press for some days, (occasionally turning them,) until the linen wrapper was no more moist; after which they were attended in the usual way, except that they were anointed with hog's lard instead of whey butter."

**MINCE PIES.**—To make mince pies without apples or cider, take the requisite quantity of meat, and one-third the quantity of beefs, that is commonly used of apples. Boil the beefs, and let them pickle twelve hours. Chop them very fine, and one-eighth of grated wheat bread. Sweeten and season with spices, &c. to taste.

Wisconsin, 1842.

F. W. S.

**FOR COLORING ORANGE COLOR.**—Take black alder bark, boil it well and strain the liquor; wet the cloth with a strong lye, and dip it into the alder liquor; let it remain until cool enough to wring, and you have an indelible orange color.

A.

### Veterinary Department.

#### DISEASE IN THE SHOULDER OF THE HORSE.

In a letter from A. POPE, Esq. of Georgia, making some inquiries as to the Morgan Horse, he says,—"I have used up some five or six horses in the three years just past, and the one I now have, has what our farriers call *big or slip shoulders*. Are you acquainted with such a disease; and if so, what remedy is the best to effect a cure?"

The disease spoken of by Mr. Pope, is occasioned by some violent shock or sprain given the deep seated muscles, by which the shoulder blade of the horse is attached to the body. The injuring of these is not common; but when it does occur, inflammation ensues, and their thickening, and the consequent enlargement of the shoulder is the result. In sprain of the shoulder, from the position of the muscles injured, few local measures of relief can be adopted. At the commencement of the inflammation, bleeding from the vein on the inside of the arm, (the plate vein,) may be beneficial, a dose of physic be given, fomentations employed on the inside of the arm close to the chest, and the horse must be kept as quiet as possible. At a later period, the cure, if ever accomplished, must be left to time and rest from all exertion.

#### DEATH OF A MAN FROM GLANDERS.

It has long been known that glanders was one of the most incurable and fatal diseases of horses, and contagious in the extreme; and within a few years the alarming fact has been disclosed, that man was susceptible of the contagion from the brute, and numerous cases are now on record, where hostlers and others, having the care of glandered horses, have fallen victims to well marked cases of the disease. A late No. of the "Veterinarian," gives from the Lancet, an account of the death of M. Roher, a student of the hospital Necker of Paris, from this disease, contracted from a patient of which he had charge, and which died of glanders; thus proving that it may not only be communicated from the horse to man, but from one man to another. To demonstrate the nature of the disease from which M. Roher died, M. Leblanc, a distinguished surgeon, inoculated a horse with the matter discharged from the tumors formed on body of M. R. previous to his death, and the animal died, exhibiting every appearance of acute glanders in its most malignant form. The facts of this case, which are recorded at length, show that great care should be used by those having the management of glandered horses; indeed, the public good requires that every such horse should be destroyed at once. It was the opinion of the eminent physicians M. Berard and M. Leblanc, who attended the unfortunate Roher, that he did not receive the disease by inoculation, but that in the acute stages of the disease, there is a miasmatic infection, similar to that of scarlatina or variola, and consequently greater precautions are necessary than in diseases which can be only communicated by actual contact.

#### BLOODY MURRAIN.

**MESSRS. EDITORS.**—Having frequently seen notices of the bloody murrain among cattle, and various things recommended as a cure for this disease, I take the liberty of stating what little I know of it. I have seen a number of cattle that have died of this disease, and have lost two cows myself. In all, the symptoms were nearly the same, and all died in from three to twelve hours after they were taken, never having exhibited any symptoms of it before. Both of my cows, though they died 3 years apart, were in very good condition, having uniformly had good food and water. One died in May, and the other in February. On a post mortem examination, I found in each, a large quantity of extravasated blood among the viscera, and the liver greatly diseased, almost rotten, and from half to three quarters consumed. Hence I have concluded, that the disease is probably of some months standing, and as the animal shows no symptoms of it till just before death, there is no cure, and the only hope in regard to it is in prevention.

H. A. P.

#### RELIEF OF CHOKED CATTLE.

**MESSRS. GAYLORD & TUCKER.**—I find in your Oct. No. of last year, a receipt by David F. Lott, to relieve choked cattle. I some months since, sent to the Agriculturist, Nashville, a receipt, and in a few weeks after its publication, received the thanks of a gentleman who by using the prescribed means, saved a fine horse, after trying all other means recommended without effect. I send it to you:—Raise one of the fore feet as the smith does when shoeing a horse, tie a strong cord, whip cord or drum line will answer, tight above the knee while the foot is up, let the foot go, and if the animal refuses to put it to the ground, as it probably will, a smart stroke with a whip must be dealt, and in a second the beast is relieved; be careful in tying the string, to tie a slip knot that you can loosen quick, for the pain is excruciating. How it operates is immaterial; my theory (probably a false one,) is this, the hard cord acting on the nerves of the arm, produces nausea, the muscles of the throat are relaxed, and the substance by which the brute is choked is thrown from the gullet.

JOHN A. JONES.

Fairie Kauer, Geo. 1842.

Let no man or woman be ashamed to work.

#### SOUTH DOWN BUCKS.

THREE very superior South Down Bucks, clothed with fine wool and long enough for combing, imported direct from England, from the flock of the late John Ellman, Esq. of Clyde, near Lewes, Sussex, are for sale, or to be let for the season, by the personal friend of the breeder.

OBADIAH ELLIOT

Elizabethtown, N. J., August 27, 1842.

#### ISABELLA GRAPE VINES.

OF proper age for forming vineyards, propagated from and containing all the good qualities which the most improved cultivation for over ten years has conferred on the vineyards at Croton Point, are now offered to the public. Those who may purchase, will receive such instructions as will enable them to cultivate the grape with entire success, (provided their locality is not too far north.) All communications, post paid, addressed to R. T. UNDERHILL, M. D., 400 Broadway, N. Y., will receive attention. He feels quite confident that he has so far ameliorated the character and habits of the grape vines in his vineyards and nurseries, by improved cultivation, pruning, &c., that they will generally ripen well and produce good fruit when planted in most of the northern, all the western, middle and southern states.

Sept. 1, 1842.

#### ALBANY NURSERY.

THE proprietors of the above establishment would respectfully give notice to the lovers of good fruits, flowers, &c., that they have now on hand and for sale, as large and extensive assortment of fruit and ornamental trees, shrubs, greenhouse plants, &c., as will be found in this or any other section of the country. They would also notify those who wish to purchase fruit trees the coming fall, not to delay in sending their orders early, to ensure a good selection, as well as to size as fruit.

Specimens of over fifty or sixty varieties of fall and winter apples, can be seen at the nursery, raised on the farm of the late Jesse Buel, deceased; also several very fine varieties of pears, &c., which purchasers would do well to call and examine, and select from the fruit.

J. B. & Co. would respectfully tender their thanks to the public generally for the very liberal patronage bestowed upon them, and would solicit a continuance of the same, in which they pledge themselves to sell as cheap and please as well as any other similar establishment in the country.

Catalogues may be obtained of our city agent, Geo. Dexter, Druggist, &c., State-street, Albany, or at the Cultivator Office. All orders should be addressed, post paid, to Jesse Buel & Co., Albany Nursery, Albany.

JESSE BUEL & CO.

#### FRUIT TREES.

##### Of Excellent and Proved Varieties.

IN addition to the list of peaches given in the last number of the Cultivator, the subscribers have for sale the following select varieties: the *Cherry*—Black Tartarian, White Tartarian, Early Richmond, Black Corone, Mayduke, Transparent Guigne, and Carnation. The trees are of large size, and of uncommonly fine growth; price, fifty cents each.

*Nectarines*, two excellent varieties, the *Elruge* and *Early Violet*; price, twenty-five cents each.

*Apricots*, three very fine varieties, the *Breda*, *Early Peach*, and *Peach Apricot*; thirty-seven and a half cents each.

*Pears*, six excellent varieties, *Madeleine*, *Skinner*, *Julienne*, *Summer Bonchretien*, *Seckel* and *Virgalieu*; price, thirty-seven and a half cents each.

*Apples*, consisting chiefly of select summer and autumn table fruit, and a few winter apples, of the following varieties: *Yellow Harvest*, *Bough*, *Woolman's Early*, *Sine Qua Non*, *Buffington's Early*, *Strawberry*, *Rambo*, *Bellflower*, *Tallman Sweeting*, and *Suwar*; price, twenty-five cents each.

The object of the proprietors has been to reduce their list to a few of the very finest kinds, and none are ever offered for sale by them but *PROVED VARIETIES*, whose adaptation to our climate has been fully tested by experience.

Orders with remittances, directed to Thomas & Smith, Macedon, Wayne co., N. Y., will be promptly and faithfully attended to, and the trees, well packed, sent by the Erie canal or by the Auburn and Rochester railroad.

Catalogues, with practical directions, furnished gratis on post paid applications. J. J. THOMAS, Macedon, 10th mo. 1, 1842. W. R. SMITH.

#### TO FARMERS, PLANTERS, HORTICULTURISTS, AND DRUGGISTS.

THE compound chemical whale oil soap may be considered at the present moment the best preparation that ever was compounded for the total destruction of every species of insects infesting the vegetable kingdom—the rose bugs, the caterpillars, on grape vines, melons, the hessian fly, the cut and army worms, will, after a few applications, be exterminated.

Likewise fly paper, for communicating flies and mosquitoes from rooms, stores, stables, &c.

Poisons, warranted the only original and safest ingredients to destroy and exterminate the moths, bed bugs, rose bugs, caterpillars, cockroaches, rats, mice, musquitos, fleas, flies, and lice, and every other vermin, or larger animals, warranted to eradicate and to perform all what it is intended. Seed Protector, for guarding all seeds when planted, against the attack of the grub worm, and the young sprouts from the approach of the caterpillar, crow bird, &c.

Sulphate of soda, a most valuable ingredient for adding to manure. Dr. LEWIS FEUCHTWANGER, New-York, 1842. Chemist, No. 1, Wall-street.

#### DENNIS' PATENT TROUGHS.

TO prevent canker worms from ascending fruit or ornamental trees.

STATE, COUNTY, AND TOWN RIGHTS FOR SALE.—The demand for the patent circular troughs has so much increased, that I am unable to supply the increasing wants from various parts of the country. I am therefore very desirous to sell state, county, and town rights; where rights are not sold I wish to appoint agents.

AGENTS WANTED.—Where I do not sell the right, I should like to grant the privilege to some competent persons, to make and apply the troughs, by paying me a certain sum per pound for all the metal used. In granting a privilege as above, it offers an opportunity to any person to commence business without capital, upon the most favorable terms.

Gentlemen wishing their trees protected, are requested to recommend a suitable person that will accept the agency for putting on the troughs.

Persons wishing to purchase rights or obtain the privilege of putting on the troughs, will please address (post paid,) JONATHAN DENNIS, Jr., Portsmouth, Newport County, R. I., who has for sale, Apple Trees, a choice collection of fifty different kinds, many of them of large size.

CAUTION.—All persons are cautioned against making any patent circular troughs without my written permission, as the patent law allows treble damages in cases of infringement.

FROM THE STEAM PRESS OF C. VAN BENTHUYSEN & CO.